



Natural Resources
Canada

Ressources naturelles
Canada

**GEOLOGICAL SURVEY OF CANADA
OPEN FILE 7726**

**Regional Centroid Moment Tensor Solutions for Eastern
Canadian Earthquakes: 2011-2013**

A.L. Bent

2015

Canada 



**GEOLOGICAL SURVEY OF CANADA
OPEN FILE 7726**

**Regional Centroid Moment Tensor Solutions for Eastern
Canadian Earthquakes: 2011-2013**

A.L. Bent

2015

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources Canada, 2015

doi:10.4095/296795

This publication is available for free download through GEOSCAN (<http://geoscan.nrcan.gc.ca/>).

Recommended citation

Bent, A.L., 2015. Regional Centroid Moment Tensors for Eastern Canadian Earthquakes: 2011-2013; Geological Survey of Canada, Open File 7726, 1 .zip file. doi:10.4095/296795

Publications in this series have not been edited; they are released as submitted by the author.

Abstract

Regional centroid moment tensor solutions have been determined for twenty-eight moderate-sized earthquakes in eastern Canada for the period 2011-2013. Three other earthquakes were evaluated but good quality solutions could not be obtained. The moment tensor inversion method is used to determine the focal mechanism, depth and seismic moment of the earthquakes. These parameters, in turn, provide information about the seismotectonic environment in which the earthquakes occur and may help improve seismic hazard estimates. The purpose of this paper is not to provide an in-depth analysis of any specific earthquake but to catalog the solutions and data used to obtain them to make them available for future research projects.

Introduction

Earthquake focal mechanisms provide information about the orientation and direction of motion on the fault that generated the earthquake. A suite of focal mechanisms from a particular region can be used to improve the understanding of the seismotectonic environment in which the earthquakes occur. In the past, focal mechanisms were most often determined by the polarity distribution of first motions. This method is tedious and requires a large number of clear readings from a wide variety of azimuths, which makes it difficult to obtain unique solutions for smaller earthquakes or those occurring in regions, such as the offshore, where the station density is low and azimuthal coverage poor. The moment tensor inversion, which makes use of a longer portion of the waveform, is a more robust and more objective method to determine focal mechanisms. They also provide the hypocentral depth, which has implications for seismic hazard as well as information about regional seismotectonics, and seismic moment (and moment magnitude), which is generally considered the best measure of earthquake size. However, moment tensors use relatively long-period data and they, too, do not always result in good-quality solutions for smaller earthquakes. Having said that, there has been an increase in the percentage of magnitude 4+ earthquakes for which focal mechanisms could be determined since regional centroid moment tensor (RCMT) method was implemented in eastern Canada around 2005-2006. The impact is most notable in the north where it was difficult to obtain focal mechanism solutions for all but the few earthquakes large enough to be well-recorded at teleseismic distances. For example, Bent et al (2003) were able to obtain focal mechanisms for only four of fourteen events evaluated in the region extending from the Labrador Sea to northern Baffin Bay-Baffin Island during the period 1994-2000. From 2011 through 2013 seven solutions were obtained for ten events evaluated in the same region (this paper).

For seismological purposes eastern Canada is roughly defined as east of 100°W longitude. Some judgment calls in whether to treat earthquakes as western or eastern, however, are made in the case of the extreme north where lines of longitude are close together and where the m_N or Nuttli magnitude scale (Nuttli, 1973) used for eastern Canada may be used as the primary or database magnitude for earthquakes west of this line. As a general practice earthquakes falling within the territory of the United States or Greenland are not included although exceptions may be made in the case of any event close to the border that was widely felt in Canada. In some cases the closest seismograph station to the earthquake may be in the United States or Greenland even if the earthquake is in Canada. With respect to offshore earthquakes there are no strict criteria used to determine which earthquakes to study but most earthquakes occurring close enough to Canadian territory to have been recorded by a reasonable number of seismograph stations at distances between 150 and 1500 km will be evaluated.

RCMT solutions for all of Canada through the end of 2010 were summarized by Kao et al. (2012). The current paper catalogs the RCMT solutions for eastern Canada from 2011 through 2013. Solutions that met the minimum quality criteria were obtained for twenty-eight earthquakes. Three other events were analyzed but the solutions were rejected as they did not meet these quality criteria. It is anticipated that this will be the first in a series of RCMT summaries for eastern Canada henceforth produced on an

annual basis although other options for the dissemination of RCMT solutions, such as the creation of an online database are being explored. It should be noted that although this paper focuses on eastern Canada, the RCMT method is also routinely applied to earthquakes in western Canada. (for example, Ristau, 2004; Ristau et al, 2007; Kao et al 2012)

Regional Centroid Moment Tensor Inversion Method

Moment tensor inversion is one method by which earthquake focal mechanisms, or faulting parameters may be determined. It also provides additional source parameters including depth, seismic moment and source time function as well as a measure of any non-double couple component of the source. Note that source time function is generally not well resolved for small and moderate earthquakes. For all earthquakes summarized in this paper a 1.0/1.0/1.0 (sec) time function is assumed. Because it is based on fitting a relatively long portion of the recorded waveform and provides a quantitative measure of the fit, the RCMT is advantageous over other methods of focal mechanism determination, such as first motions which are based on a very small portion of the waveform, which can be difficult to pick accurately for small earthquakes and which require a larger number of good quality recordings for a unique solution to be determined.

The RCMT method used to analyze Canadian earthquakes is that of Kao et al (1998). More details about the method may be found in that paper and an in-depth discussion of its implementation in Canada is covered by Kao et al (2012). Both papers also include references which provide supplementary background information on centroid moment tensors. The discussion below is focused on topics specifically related to eastern Canada.

In eastern Canada the RCMT inversion is run for all earthquakes of magnitude 4.0 or greater. Note that the Nuttli m_N magnitude is the most commonly used magnitude scale in eastern Canada but that M_L may be listed as the magnitude for offshore earthquakes for which the L_g wave is either not observed or is strongly attenuated. Moment magnitude, M_W , for eastern Canada is, on average, about 0.5 magnitude units smaller than m_N (Bent, 2011). Good quality solutions cannot always be obtained for the smallest earthquakes because the signal to noise ratio is generally poor at the long periods modeled. The default frequency range is 0.03-0.06 Hz but the inversion code will modify the range if there is sufficient long period energy in the data in other frequency bands, sufficient energy being roughly defined as a signal to noise ratio (S/N) of 2.0 or greater.

Data from three-component broadband (both bh* and hh*) stations are used in the inversion. Standard practice is to use only stations from which data are received in real time by the Geological Survey of Canada (GSC). Data from additional stations may be added if an earthquake is of particular interest and if additional data are likely to improve the quality of the solution.

Two velocity models are used- one for southeastern Canada and one for the north. Essentially these are the same model, the only difference being the depth of the Moho discontinuity- 40 km for the south and 35 km for the north. These are referred to as EM40 and EM35 models respectively. With the exception of the modified Moho depth

the velocity model is that of Brune and Dorman (1963). The boundary between north and south is at approximately 60°N. If an earthquake occurs close to the boundary the inversion may be run with both models and the best solution selected. At some future point a suite of regional models may be implemented if there is evidence that this would improve the quality of the solutions. The current model is based on shield paths but it should be noted that even for those earthquakes that occur in the Appalachians most of the paths modeled are sufficiently long that there will be a strong shield component. This statement may not be true for all offshore events. The southern model is shown in Table 1. For the north the thickness of layer 3 is reduced to 19 km. The lowermost layer is a mantle half-space.

Table 1
Velocity Model for Eastern Canada

Layer	Thickness (km)	Vp (km/s)	Vs (km/s)	Density (g/cm ³)
1	6	5.64	3.47	2.70
2	10	6.15	3.64	2.80
3	24	6.60	3.85	2.85
4	-	8.10	4.72	3.30

Solutions are rated using the quality classification table in Kao et al. (2001). The classification consists of a character value from A through F based on the average misfit and a numerical value from 1 through 4 based on the compensated linear vector dipole (CLVD) component. Solutions must have a minimum quality of C4 to be accepted. The user of these solutions should bear in mind that the quality classification is strictly based on the fit of the solutions to the data modeled and does not consider the number of components modeled. Solutions based on small numbers of modeled waveforms should be used with some caution even if the fit is reasonably good.

Regional Centroid Moment Tensor Solutions for Eastern Canada

Thirty-one earthquakes were evaluated (Figure 1 and Tables 2 and 3). Solutions of quality C4 or better were obtained for the twenty-eight earthquakes listed in Table 2. The three earthquakes listed in Table 3 are those for which the solutions did not meet the minimum quality criteria for acceptance.

Table 2
Earthquakes Evaluated: Solutions Obtained

Date	Time (UT)	Lat (°N)	Lon (°W)	Mag (M _w)	Location/Region	Quality
2011-03-16	17:36:55	45.58	74.55	3.8	6 km SE of Hawkesbury, ON	C2
2011-04-15	16:45:52	42.74	56.01	4.1	Atlantic Ocean	B1
2011-05-10	23:24:21	60.20	57.20	4.1	Labrador Sea Seismic Zone	C3
2011-06-03	19:27:55	74.23	72.96	4.3	Baffin Bay Seismic Zone	B2
2011-07-25	13:11:47	61.57	64.82	4.7	30 km N of Resouion Island, NU	B4
2011-09-18	19:19:13	45.58	75.21	4.1	4 km SE of Thurso, QC	C2
2011-09-21	08:53:02	73.76	82.32	3.9	85 km S of Dundas Harbour, NU	B4
2011-10-02	08:22:53	51.21	64.18	4.4	102 km N of Mingan, QC	C2

2011-11-16	21:58:27	59.88	57.20	4.0	Labrador Sea Seismic Zone	C2
2012-02-24	22:47:22	47.62	70.23	3.8	7 km SW of La Malbaie, QC	B1
2012-04-12	02:29:39	41.93	65.76	4.3	Gulf of Maine	C2
2012-04-12	04:29:59	41.99	65.76	3.9	Gulf of Maine	B1
2012-04-23	20:14:18	71.91	75.51	3.7	125 km SE of Pond Inlet, NU	C2
2012-05-02	00:03:40	51.90	80.93	4.1	69 km N of Moosonee, ON	C3
2012-07-08	11:13:36	52.04	60.86	3.9	147 S of Happy Valley-Goose Bay, NL	B1
2012-09-02	19:53:00	81.90	91.60	4.5	235 km N of Eureka, NU	B3
2012-10-10	04:19:28	45.71	73.26	3.7	11 km SE of Vercheres QC	B1
2012-11-06	09:05:27	45.60	74.59	3.9	2 km E of Hawkesbury, ON	C4
2012-11-27	07:55:56	48.81	67.35	3.8	14 km E of Matane, QC	C1
2012-12-12	17:46:06	47.79	70.05	4.0	17 km NE of LaMalbaie, QC	B3
2013-03-29	06:17:46	49.86	49.90	4.5	Offshore Newfoundland	C4
2013-05-17	13:43:23	45.74	76.34	4.6	18 km NE of Shawville, QC	A2
2013-05-17	13:53:55	45.75	76.35	3.6	20 km NE of Shawville, QC	B2
2013-07-11	20:16:07	47.81	70.05	3.8	Charlevoix Seismic Zone, QC	B3
2013-08-29	04:47:26	47.51	47.92	4.4	363 km E of St. John's, NL	B1
2013-08-29	08:56:24	47.55	48.03	4.5	354 km E of St. John's, NL	B2
2013-09-21	14:48:26	49.77	65.91	4.0	48 km S of Moisie, QC	A1
2013-10-30	11:46:26	73.15	73.36	4.2	Baffin Bay Seismic Zone	B1

Table 3
Earthquakes Evaluated: Solution Rejected*

Date	Time (UT)	Lat (°N)	Lon (°W)	Mag.	Location/Region
2011-07-06	08:36:07	60.82	59.21	4.1 M _L	Labrador Sea Seismic Zone
2012-02-02	09:48:11	73.02	71.61	4.0 M _L	Baffin Bay Seismic Zone
2013-08-13	02:29:13	72.25	72.88	4.1 m _N	179 km E of Pond Inlet, NU

* see text

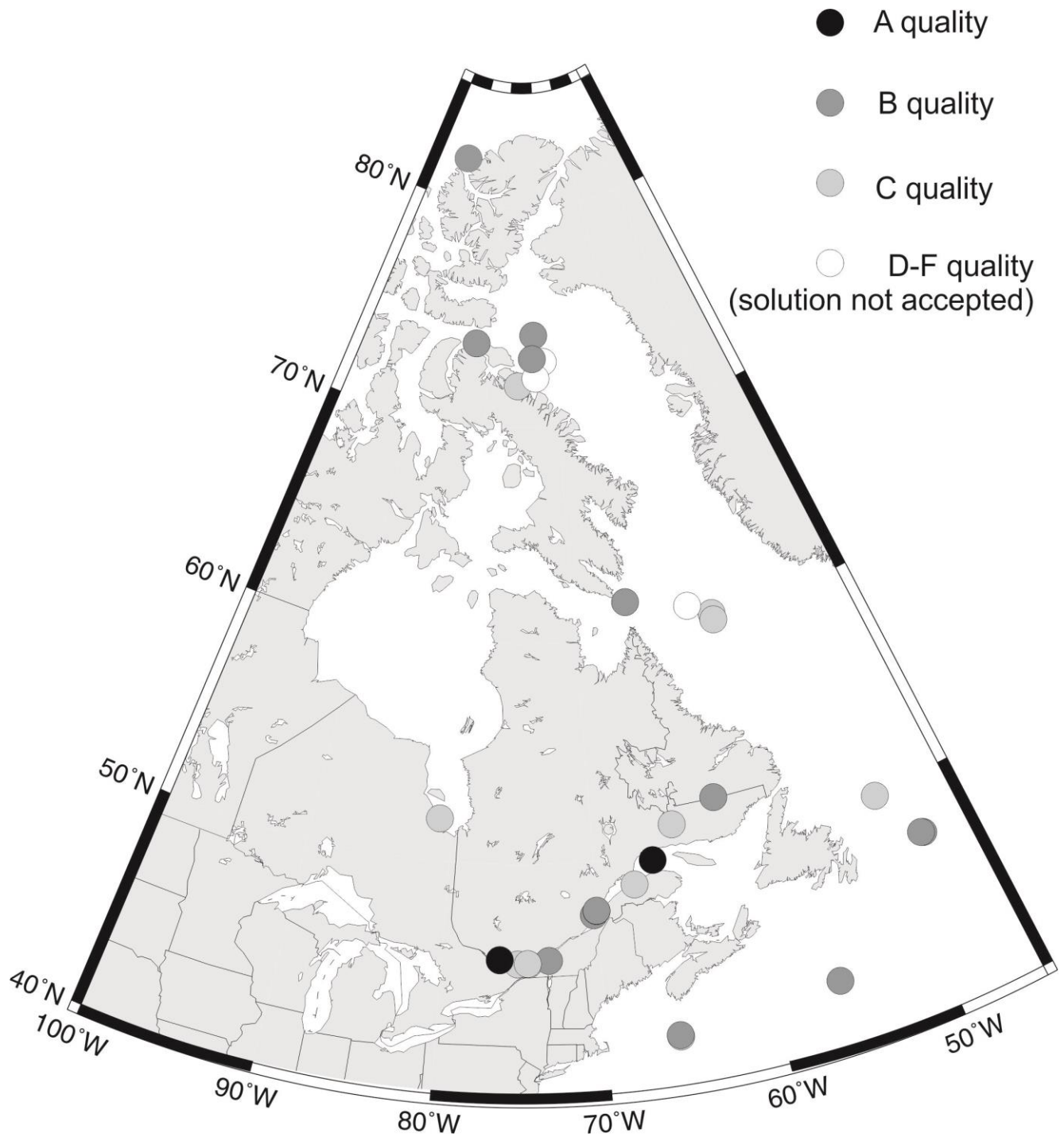


Figure 1: Locations and quality of solutions of all earthquakes evaluated in this study. Note that some points may plot on top of each other.

The solutions for the earthquakes listed in Table 2 are presented below (Figures 2a-2bb) in chronological order without additional comments. Each solution is presented as a figure with the format discussed in the next few paragraphs. The solution is summarized in the upper left corner. The origin times and epicenters are taken from the Canadian National Earthquake Database (CNED, 2014). All other parameters are derived from the RCMT

inversion. Only the best fitting double couple solution is summarized on the figure. The complete moment tensor solutions may be found in the Appendix.

The map in each plot shows the best fitting focal mechanism (lower hemisphere projection) from the inversion. The solid lines show the best fitting double couple solution and the shaded and white regions show the full moment tensor solution with the shaded regions representing compressional regions and white dilations. The P- and T-axes are indicated by gray and white dots, respectively.

To the right of the map the average misfit is plotted as a function of depth. The best fitting focal mechanism for each depth is plotted and the size of the symbol is scaled to the moment magnitude for that particular solution. Lack of variation in symbol size, as is most often the case, indicates that the calculated seismic moment is not heavily dependent on depth. A flat misfit plot indicates that the depth is not well constrained (for example, 20110415, Figure 2b) whereas a sharp dip in the misfit function is an indication of a well constrained depth (for example, 20110603, Figure 2d). In most cases the focal mechanism is relatively independent of depth but there are solutions for which this is not the case. If the best fitting mechanism has a significantly lower misfit than one indicating a different style and/or orientation of faulting it is likely correct (for example, 20110316, Figure 2a). If two significantly different mechanisms have similar misfits (for example, 20110918, Figure 2f) anyone with a particular interest in that earthquake may need to consider both as viable options or apply additional techniques to the data to determine which solution is best.

Below that, the waveforms are shown with the solid lines representing the data and the dashed lines the synthetic seismograms. For each station the waveforms from left to right are the vertical, radial and tangential components respectively. The misfit is indicated below the waveforms. The horizontal (time) and vertical (amplitude) scales are indicated to the right. The waveforms for each station are scaled to the largest amplitude at that station. Components not plotted were not used in the inversion. The most common reason for rejecting a component is a poor signal to noise ratio at the periods modeled. There could be other reasons, however, such as lack of data from one component. Note that the RCMT inversion program allows for more complicated weighting schemes but practice is to use either 1.0 (full weight) or 0.0 (not used). There were other weighting schemes proposed in RCMT studies in other regions, such as given higher weighting for stations with good S/N or lower weight for a group of stations in the same area. Given the station distribution in eastern and northern Canada there have been no obvious benefits derived from using other weighting schemes. The text to the left of each set of waveforms provides information about the station. The first line is the station code and velocity model used. The second line indicates the azimuth of the station with respect to the epicenter. The third line gives the epicentral distance, the fourth the frequency range modeled and the fifth the average misfit for the station.

2011/03/16 17:36:55.0 (UT)

Epicenter: 45.58 -74.55

Depth: 4 km Mw: 3.75

Mo: 5.272e+14 Nt-m

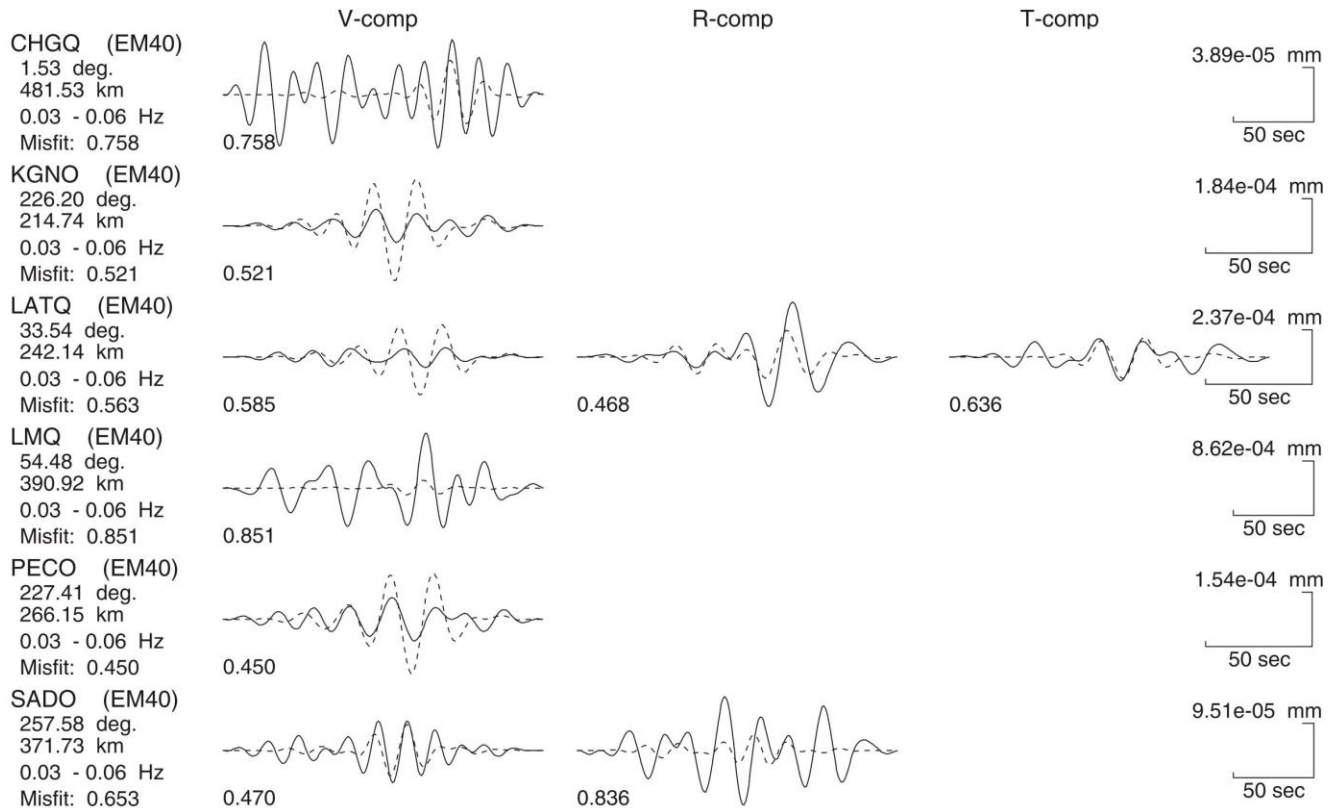
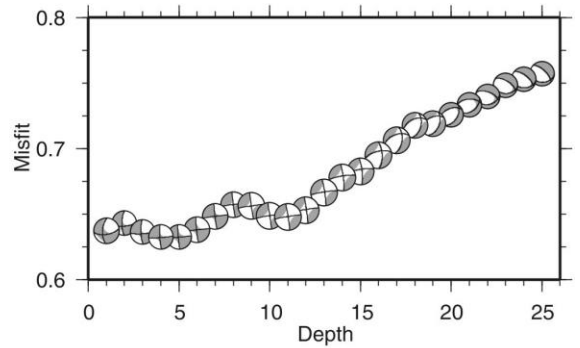
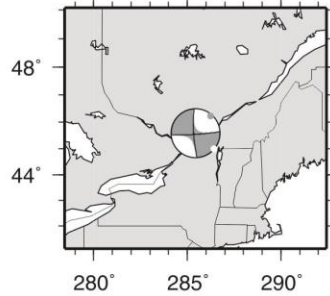
Best double couple solutions

FP1: 176.38 83.14 -175.79

FP2: 85.88 85.82 -6.88

Iso.= 1.9 % CLVD= 24.3 %

Misfit= 0.633



Source Time Function: 1.00 1.00 1.00

Figure 2a

2011/04/15 16:45:52.2 (UT)

Epicenter: 42.74 -56.01

Depth: 13 km Mw: 4.11

Mo: 1.794e+15 Nt-m

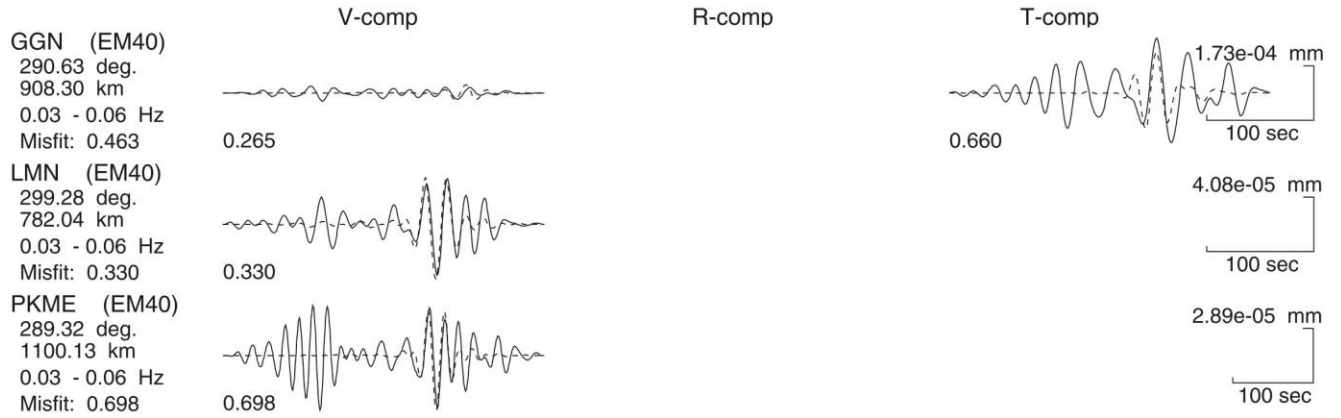
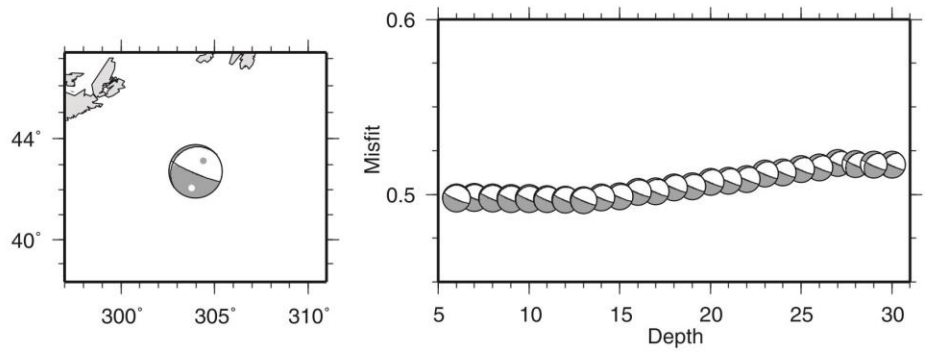
Best double couple solutions

FP1: 232.79 12.94 -149.41

FP2: 112.84 83.46 -78.81

Iso.= 0.0 % CLVD= 3.4 %

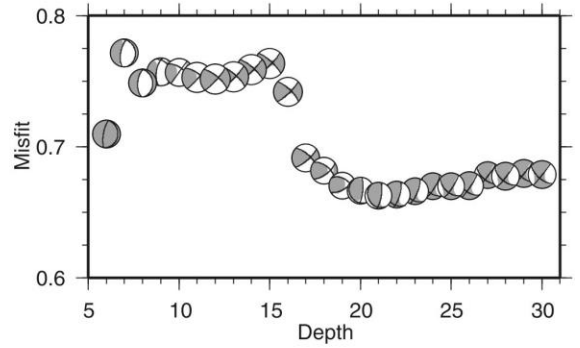
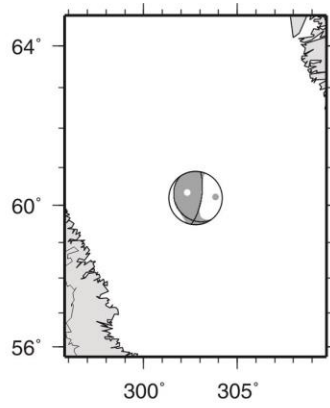
Misfit= 0.497



Source Time Function: 1.00 1.00 1.00

Figure 2b

2011/05/10 23:24:21.0 (UT)
Epicenter: 60.20 -57.22
Depth: 21 km Mw: 4.07
Mo: 1.592e+15 Nt-m
Best double couple solutions
FP1: 144.80 23.72 47.37
FP2: 9.95 72.78 106.57
Iso.= 3.0 % CLVD= 33.2 %
Misfit= 0.663



DRLN (EM40)
 180.98 deg.
 1218.40 km
 0.03 - 0.06 Hz
 Misfit: 0.790

FRB (EM40)
 308.55 deg.
 711.91 km
 0.03 - 0.06 Hz
 Misfit: 0.796

INUQ (EM40)
 269.80 deg.
 1200.39 km
 0.03 - 0.06 Hz
 Misfit: 0.581

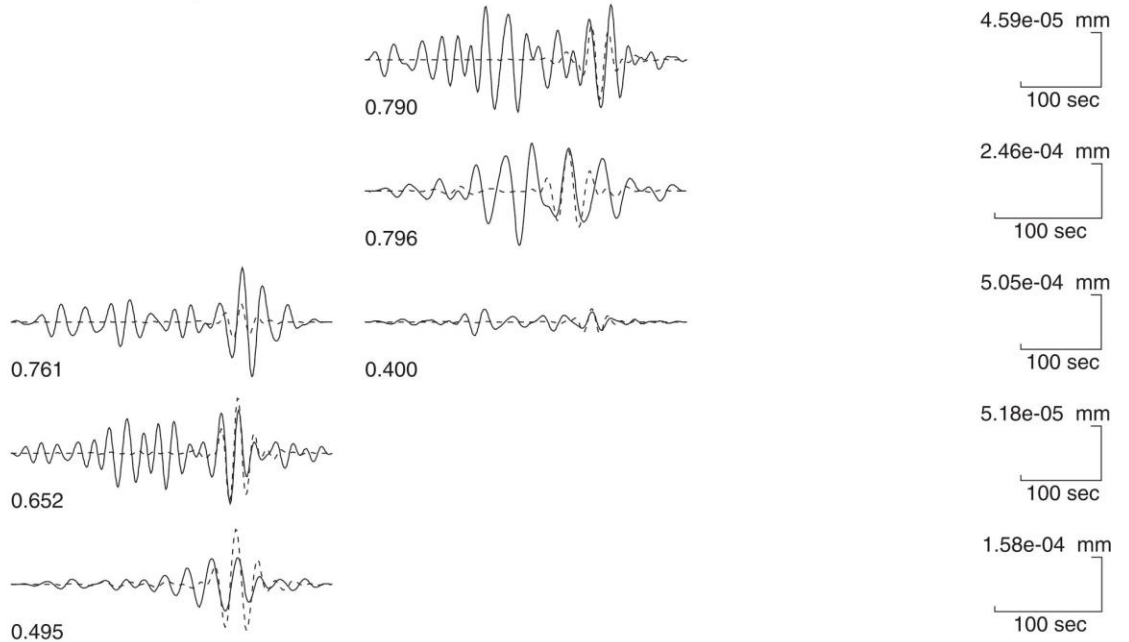
NATG (EM40)
 200.19 deg.
 1158.42 km
 0.03 - 0.06 Hz
 Misfit: 0.652

SCHQ (EM40)
 228.07 deg.
 828.64 km
 0.03 - 0.06 Hz
 Misfit: 0.495

V-comp

R-comp

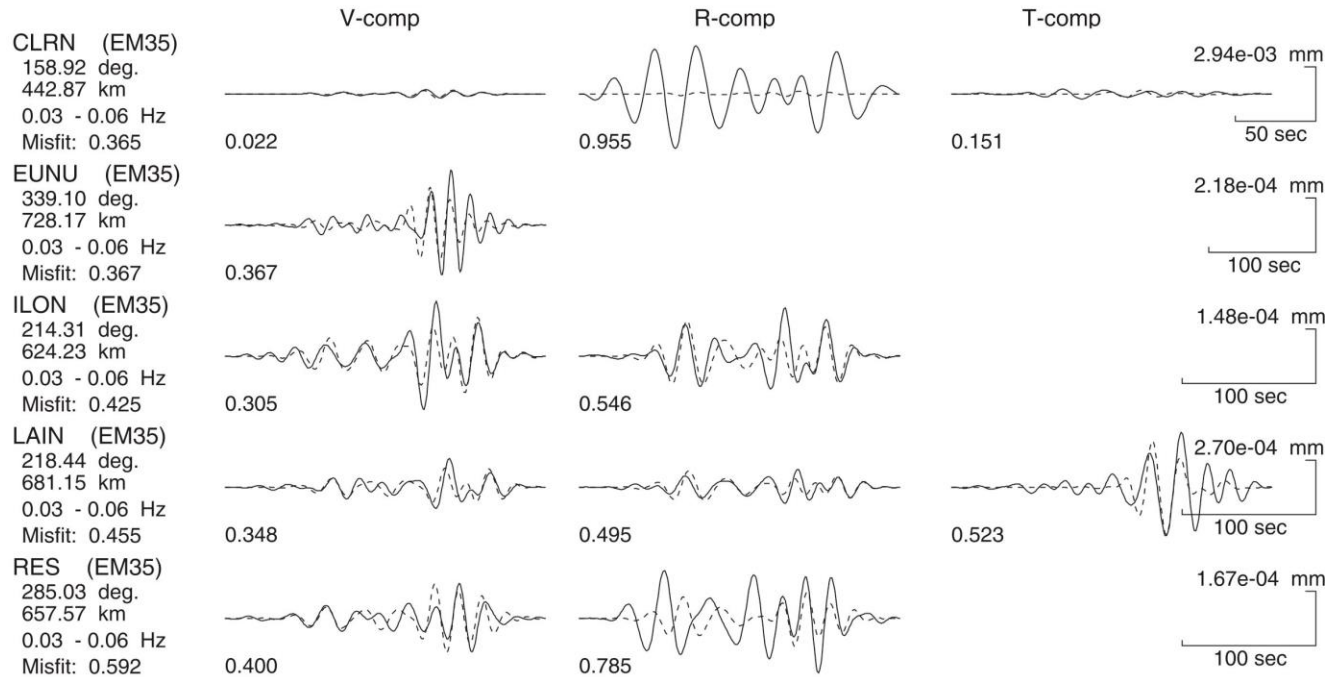
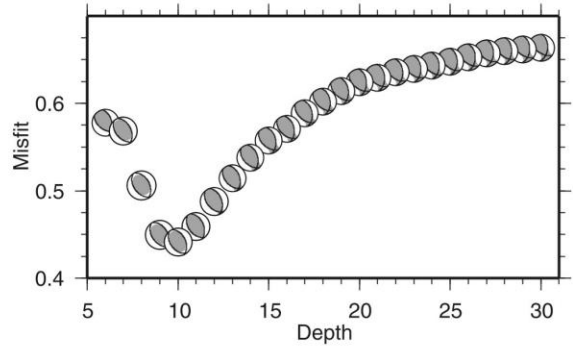
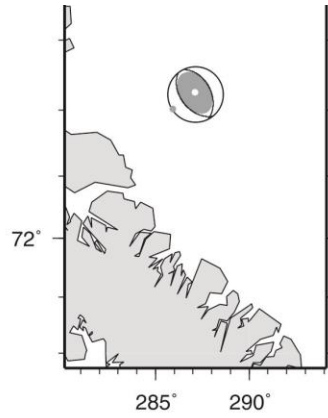
T-comp



Source Time Function: 1.00 1.00 1.00

Figure 2c

2011/06/03 19:27:56.2 (UT)
 Epicenter: 74.23 -72.86
 Depth: 10 km Mw: 4.25
 Mo: 2.963e+15 Nt-m
 Best double couple solutions
 FP1: 333.45 44.41 98.89
 FP2: 141.09 46.26 81.39
 Iso.= -3.3 % CLVD= 23.0 %
 Misfit= 0.441



Source Time Function: 1.00 1.00 1.00

Figure 2d

2011/07/25 13:11:47.1 (UT)

Epicenter: 61.57 -64.92

Depth: 16 km Mw: 4.72

Mo: 1.475e+16 Nt-m

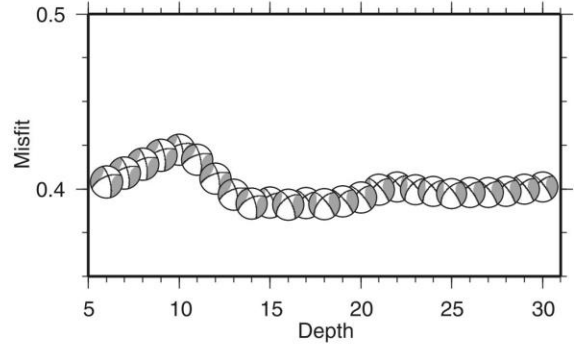
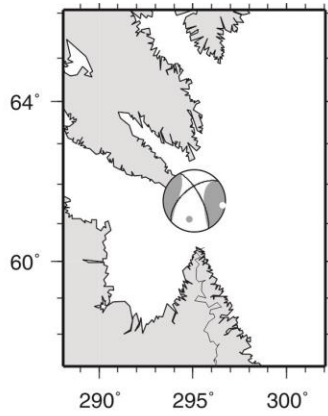
Best double couple solutions

FP1: 229.88 56.38 -22.94

FP2: 333.07 71.06 -144.17

Iso.= 0.0 % CLVD= 65.0 %

Misfit= 0.391



CLRN (EM35)

352.15 deg.

1006.02 km

0.03 - 0.06 Hz

Misfit: 0.359

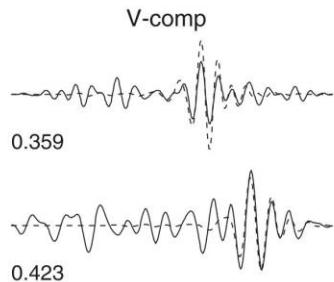
SFJD (EM35)

42.58 deg.

915.39 km

0.03 - 0.06 Hz

Misfit: 0.423



R-comp

T-comp

4.54e-04 mm

100 sec

7.75e-04 mm

100 sec

Source Time Function: 1.00 1.00 1.00

Figure 2e

2011/09/18 19:19:13.5 (UT)

Epicenter: 45.58 -75.21

Depth: 18 km Mw: 4.11

Mo: 1.807e+15 Nt-m

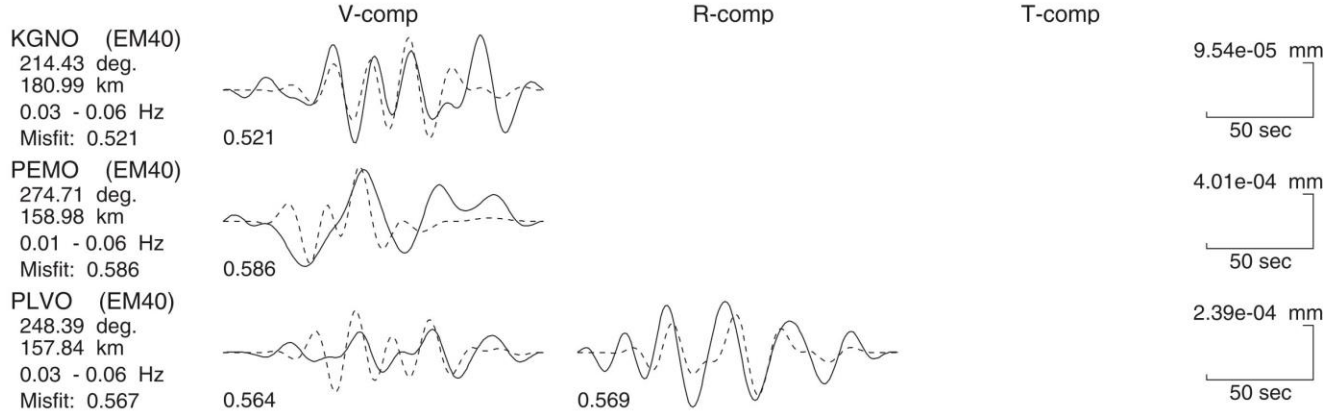
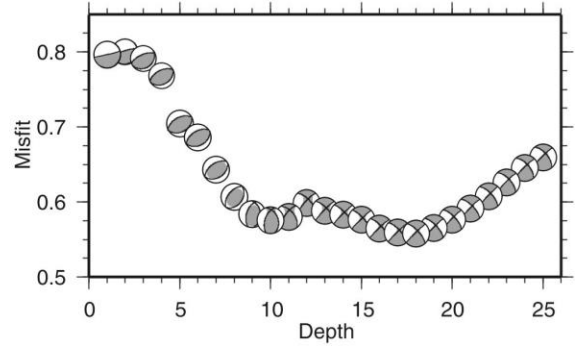
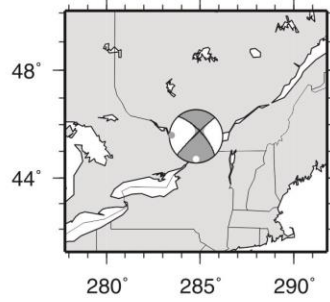
Best double couple solutions

FP1: 316.96 71.42 4.77

FP2: 225.44 85.48 161.36

Iso.= -0.8 % CLVD= 10.5 %

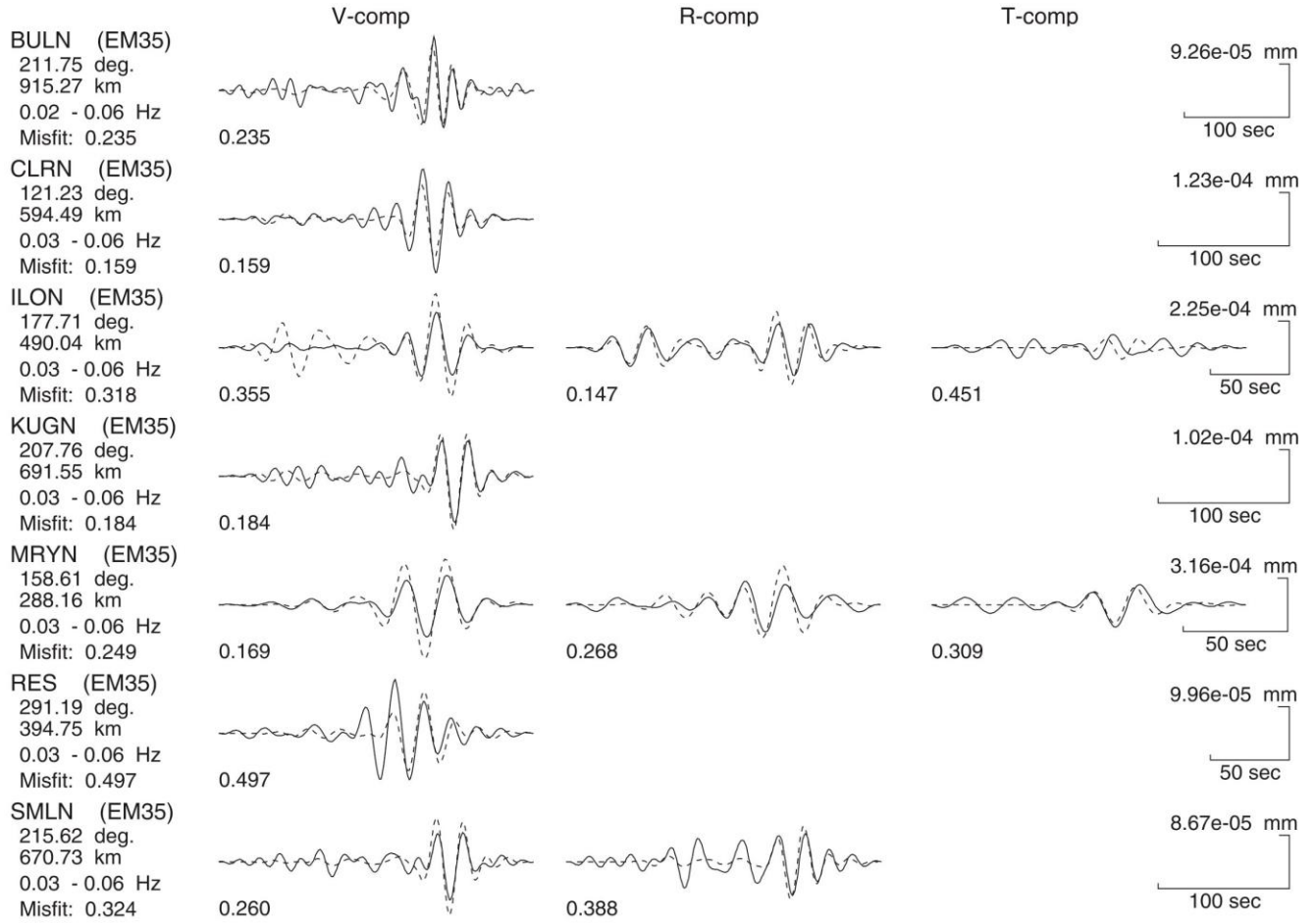
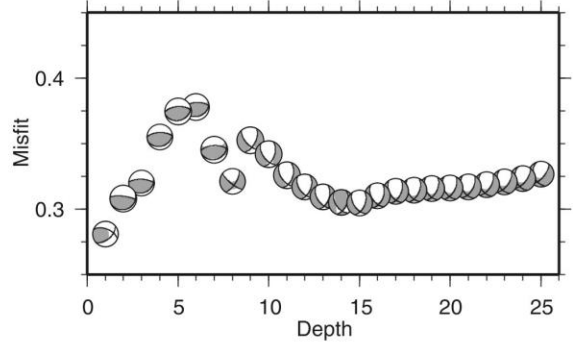
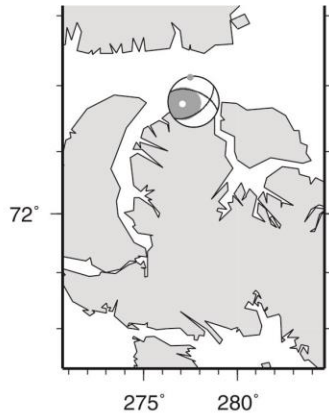
Misfit= 0.558



Source Time Function: 1.00 1.00 1.00

Figure 2f

2011/09/21 08:53:2.6 (UT)
Epicenter: 73.76 -82.32
Depth: 1 km Mw: 3.92
Mo: 9.341e+14 Nt-m
Best double couple solutions
FP1: 50.41 54.26 43.28
FP2: 291.60 56.19 135.33
Iso.= -1.2 % CLVD= 69.1 %
Misfit= 0.281



Source Time Function: 1.00 1.00 1.00

Figure 2g

2011/10/02 08:22:53.9 (UT)

Epicenter: 51.21 -64.18

Depth: 25 km Mw: 4.38

Mo: 4.574e+15 Nt-m

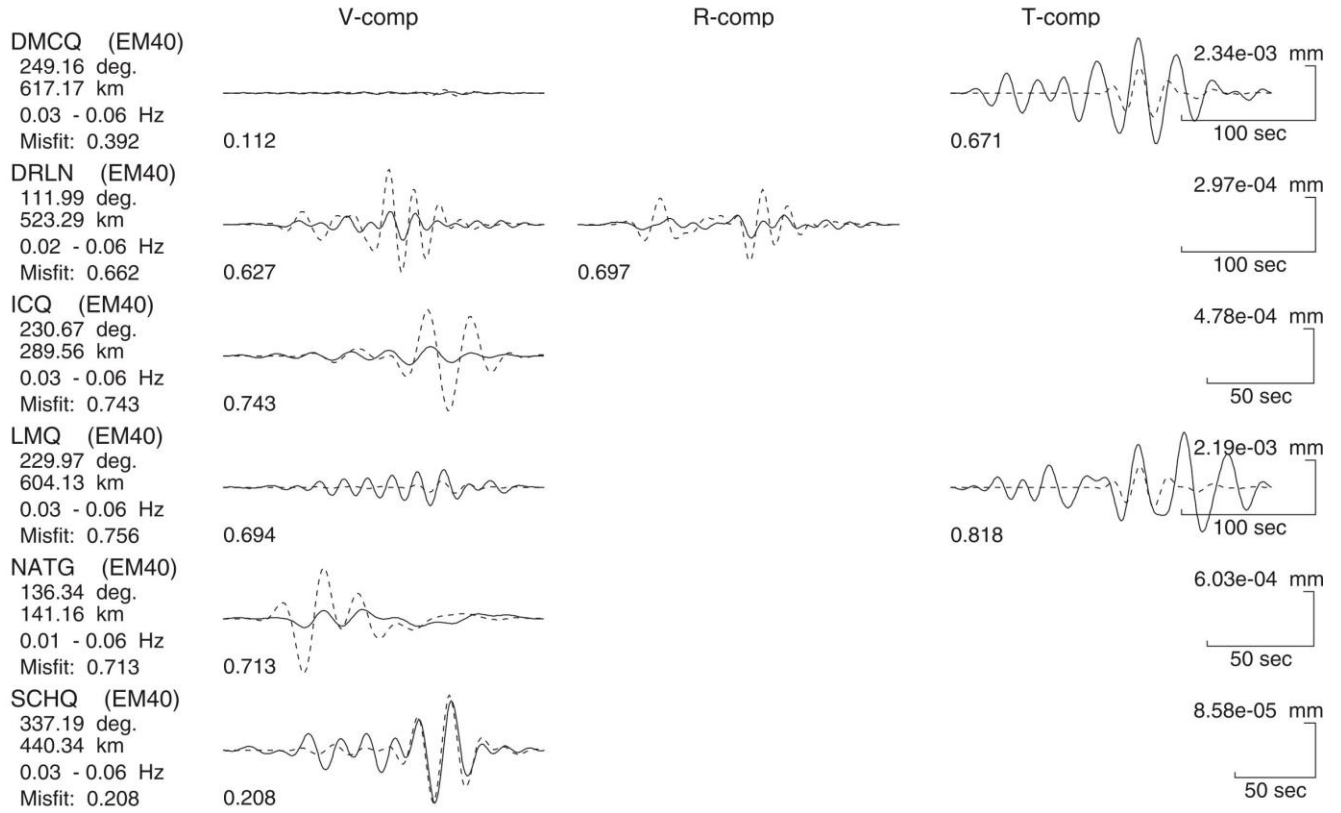
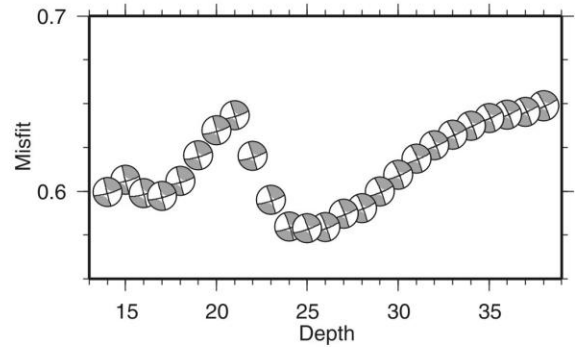
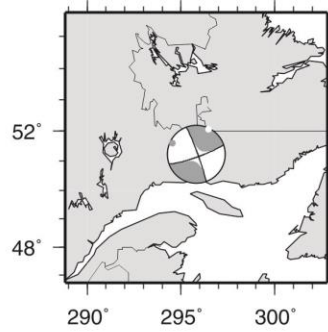
Best double couple solutions

FP1: 70.39 82.22 -176.18

FP2: 339.87 86.21 -7.79

Iso.= 0.9 % CLVD= 19.5 %

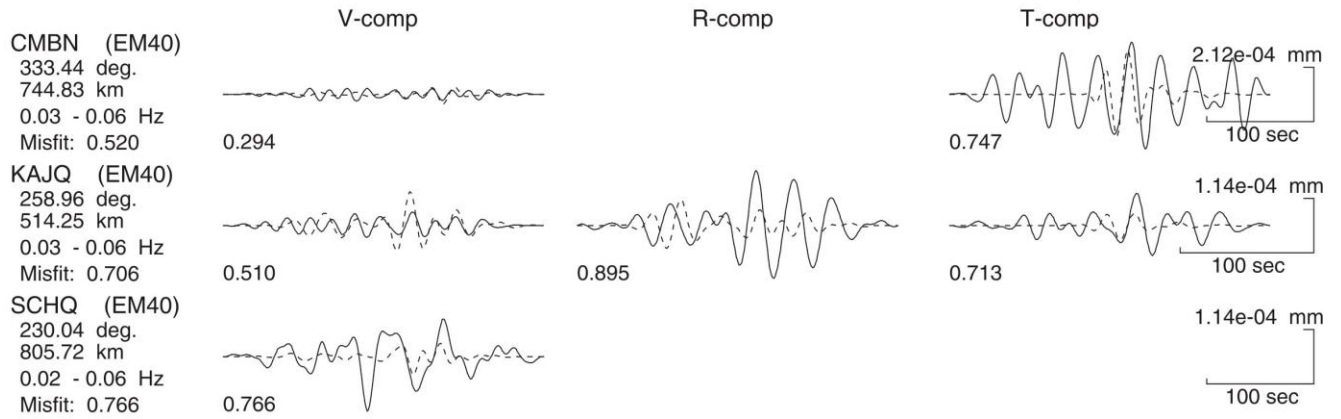
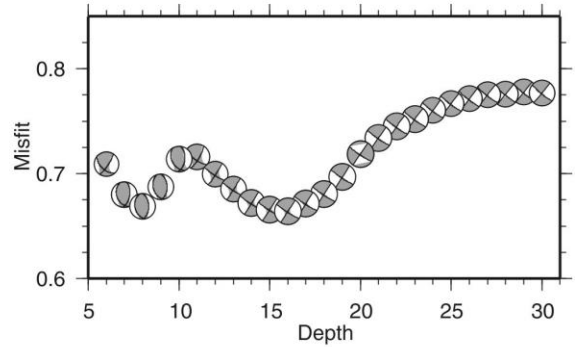
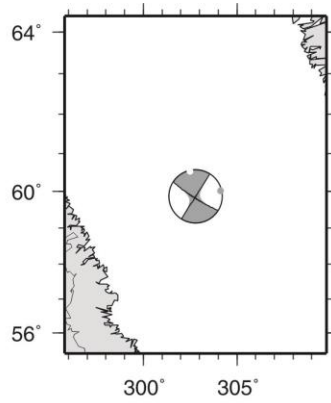
Misfit= 0.579



Source Time Function: 1.00 1.00 1.00

Figure 2h

2011/11/16 21:58:27.1 (UT)
Epicenter: 59.88 -57.20
Depth: 16 km Mw: 4.04
Mo: 1.417e+15 Nt-m
Best double couple solutions
FP1: 122.35 83.70 0.57
FP2: 32.29 89.43 173.70
Iso.= -0.7 % CLVD= 19.1 %
Misfit= 0.664



Source Time Function: 1.00 1.00 1.00

Figure 2i

2012/02/24 22:47:22.3 (UT)

Epicenter: 47.62 -70.23

Depth: 7 km Mw: 3.83

Mo: 6.853e+14 Nt-m

Best double couple solutions

FP1: 250.07 64.14 155.91

FP2: 351.11 68.45 27.97

Iso.= 3.5 % CLVD= 0.7 %

Misfit= 0.478

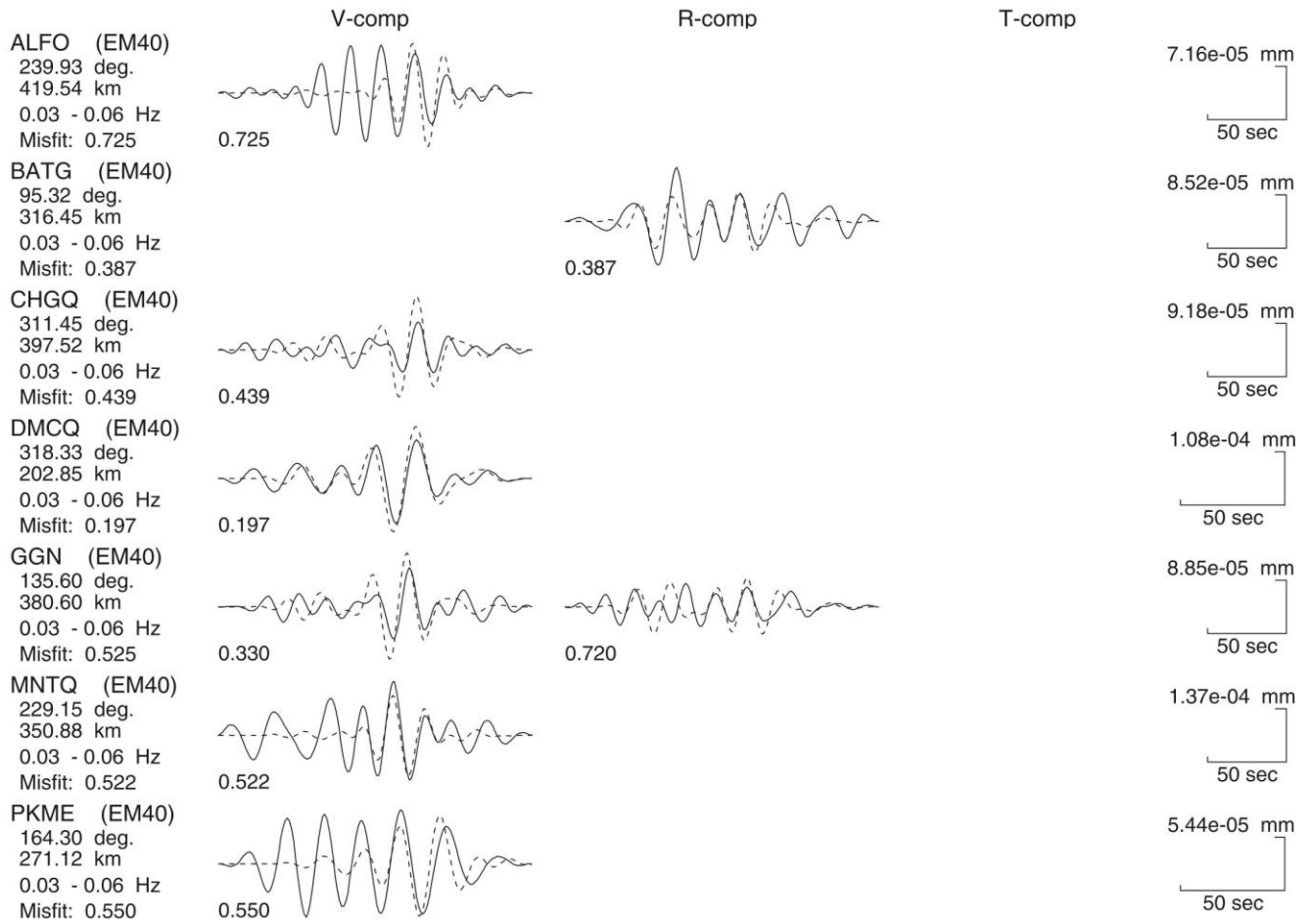
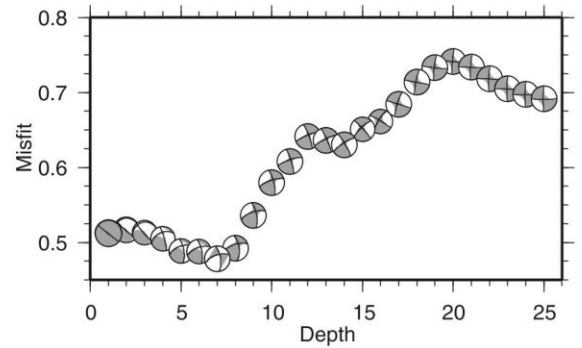
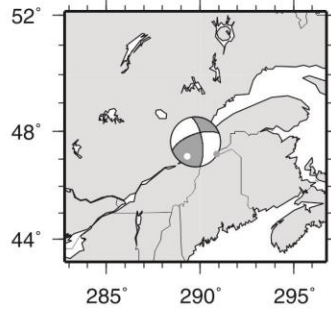


Figure 2j

2012/04/12 02:29:39.3 (UT)

Epicenter: 41.93 -65.76

Depth: 13 km Mw: 4.29

Mo: 3.351e+15 Nt-m

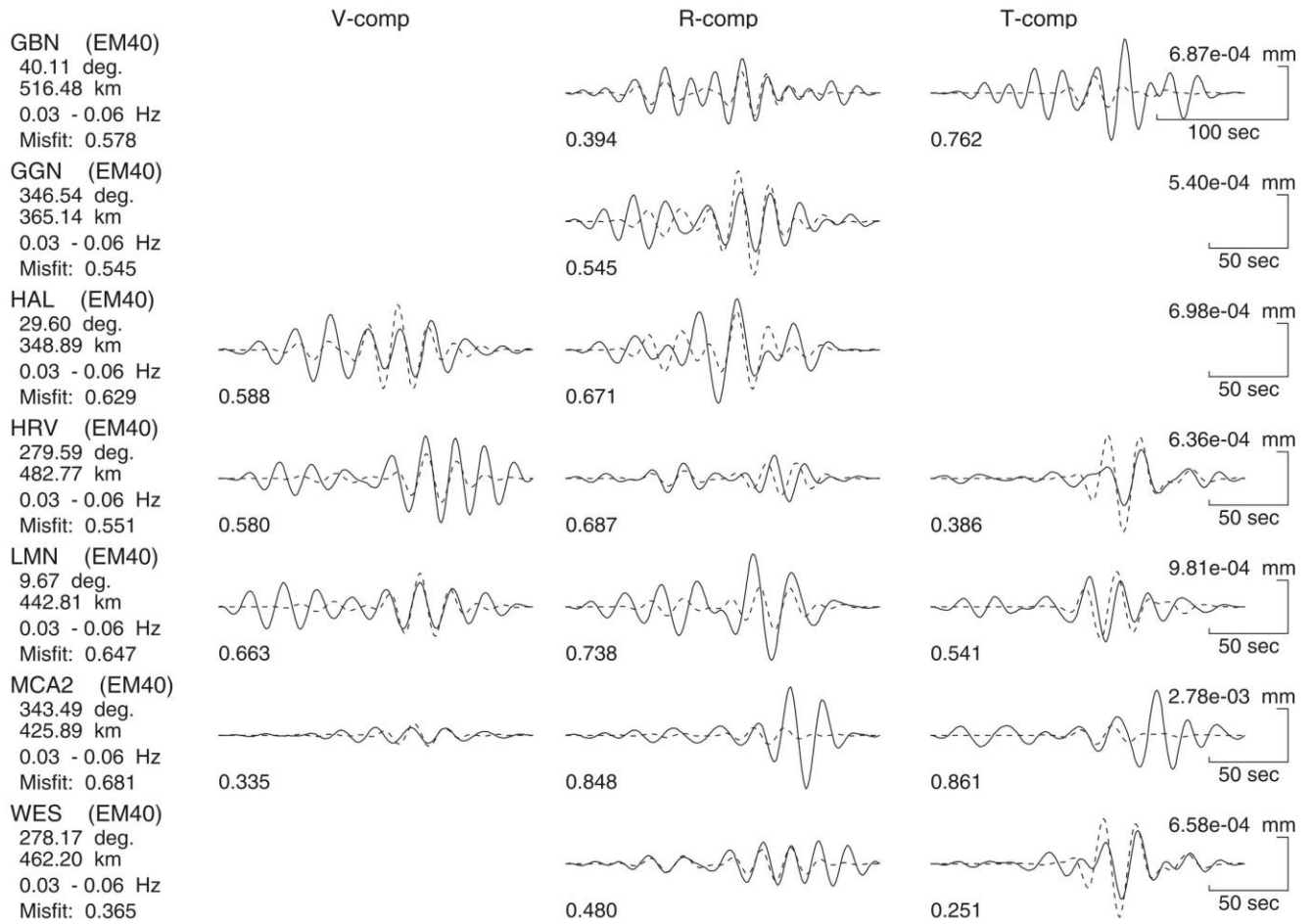
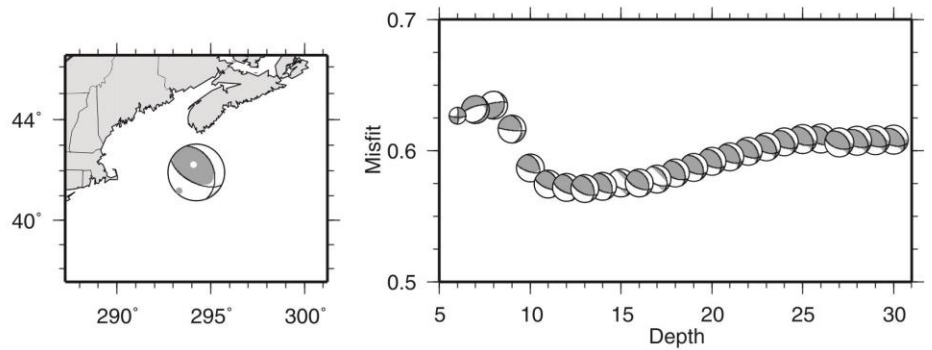
Best double couple solutions

FP1: 339.55 38.03 126.30

FP2: 116.55 60.23 65.15

Iso.= 7.3 % CLVD= 17.5 %

Misfit= 0.571



Source Time Function: 1.00 1.00 1.00

Figure 2k

2012/04/12 04:29:59.0 (UT)

Epicenter: 41.99 -65.76

Depth: 10 km Mw: 3.90

Mo: 8.763e+14 Nt-m

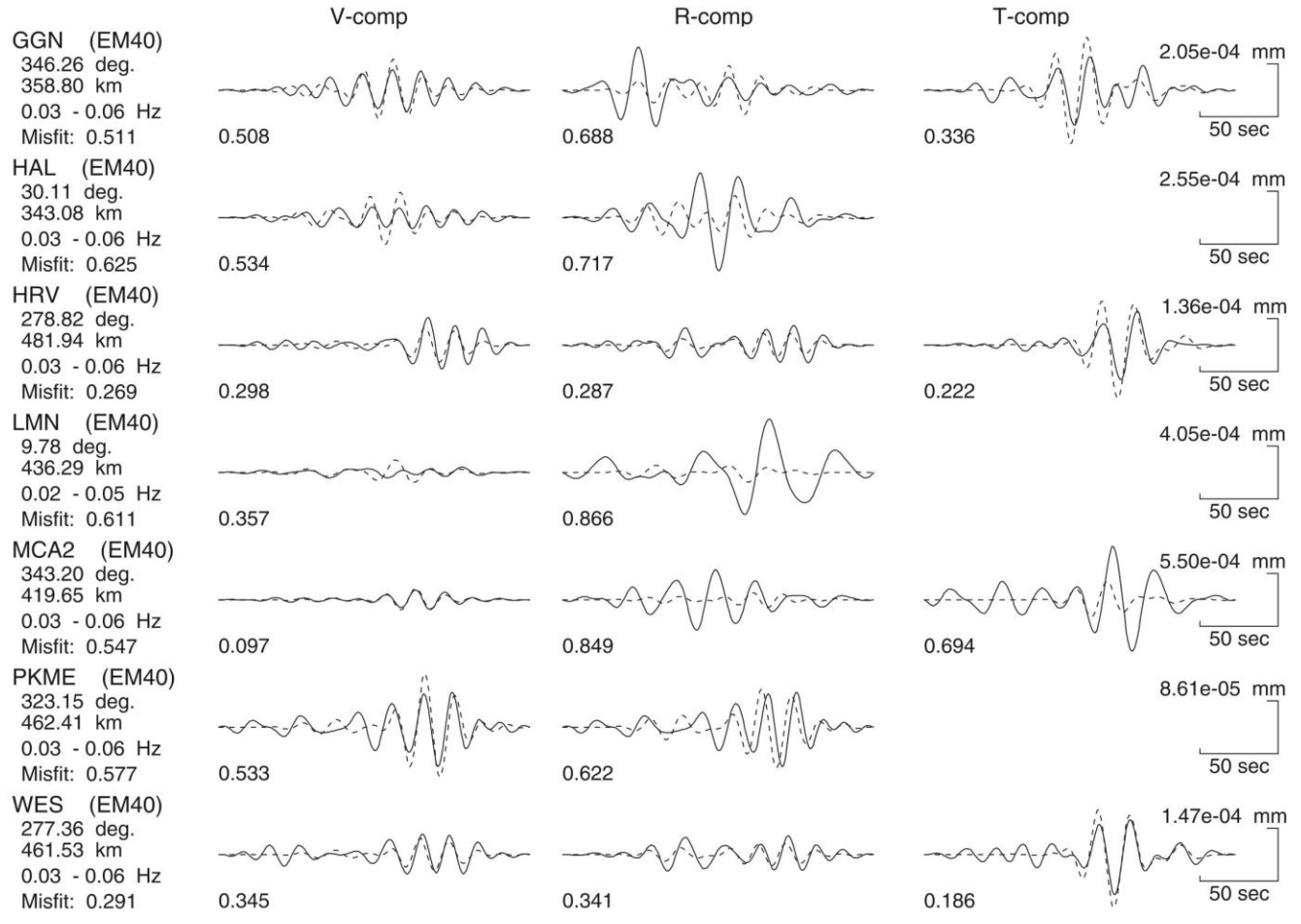
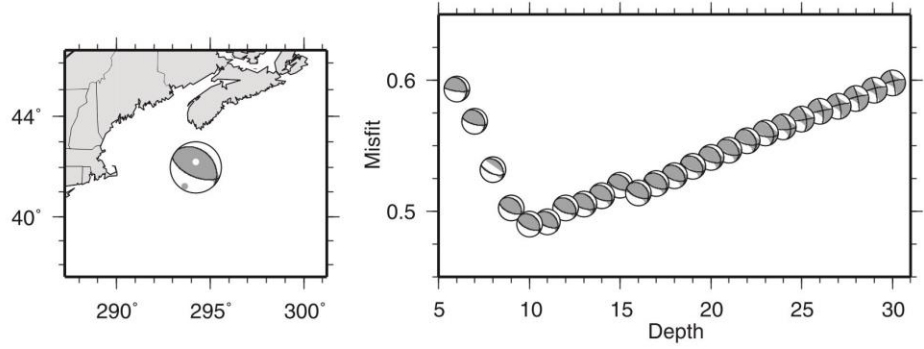
Best double couple solutions

FP1: 314.75 31.70 108.60

FP2: 113.16 60.13 78.85

Iso.= -0.5 % CLVD= 7.1 %

Misfit= 0.490



Source Time Function: 1.00 1.00 1.00

Figure 21

2012/04/23 20:14:18.7 (UT)

Epicenter: 71.91 -75.51

Depth: 8 km Mw: 3.74

Mo: 5.120e+14 Nt-m

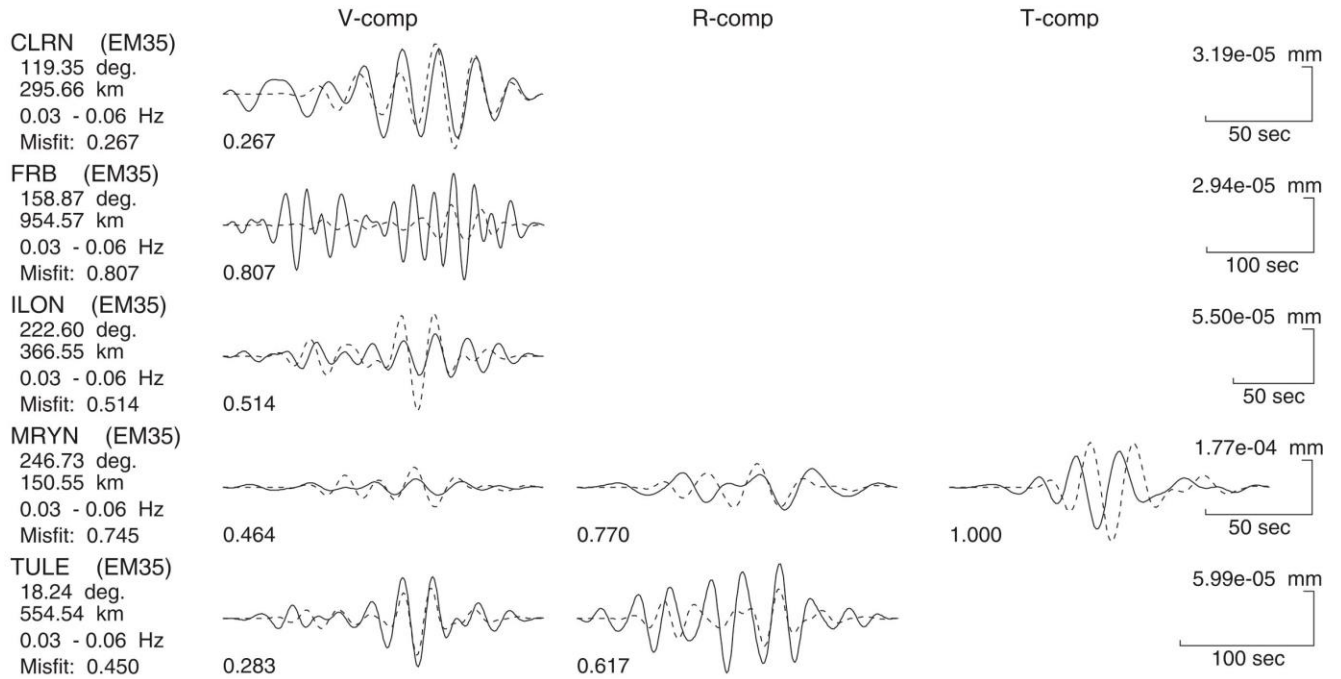
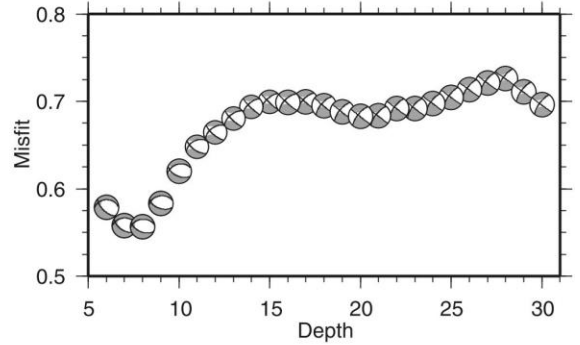
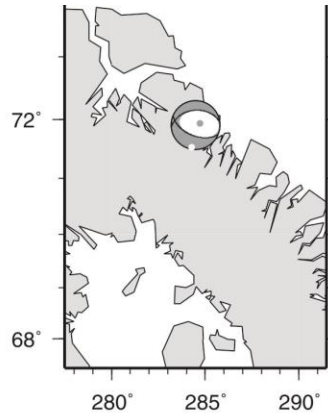
Best double couple solutions

FP1: 264.85 39.69 -111.82

FP2: 112.34 53.64 -72.86

Iso.= 0.3 % CLVD= 24.6 %

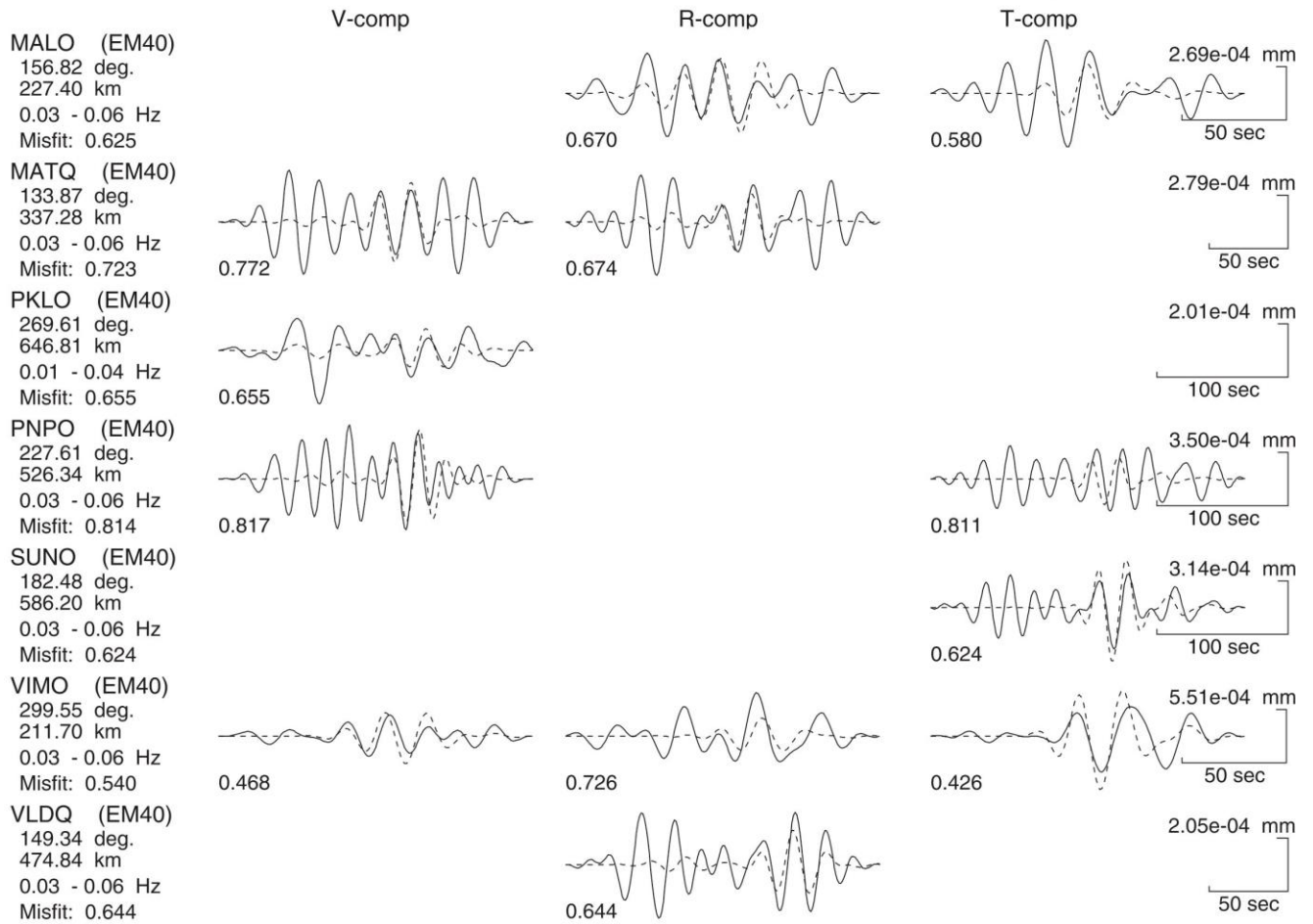
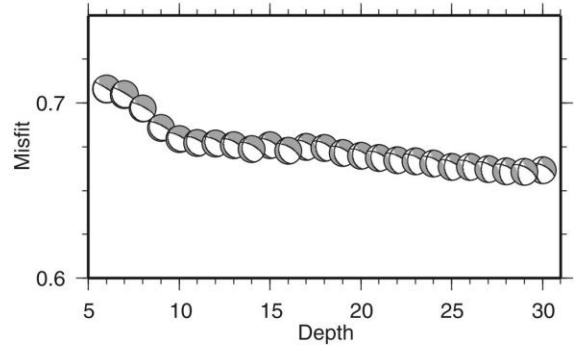
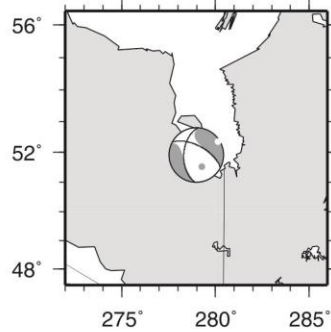
Misfit= 0.557



Source Time Function: 1.00 1.00 1.00

Figure 2m

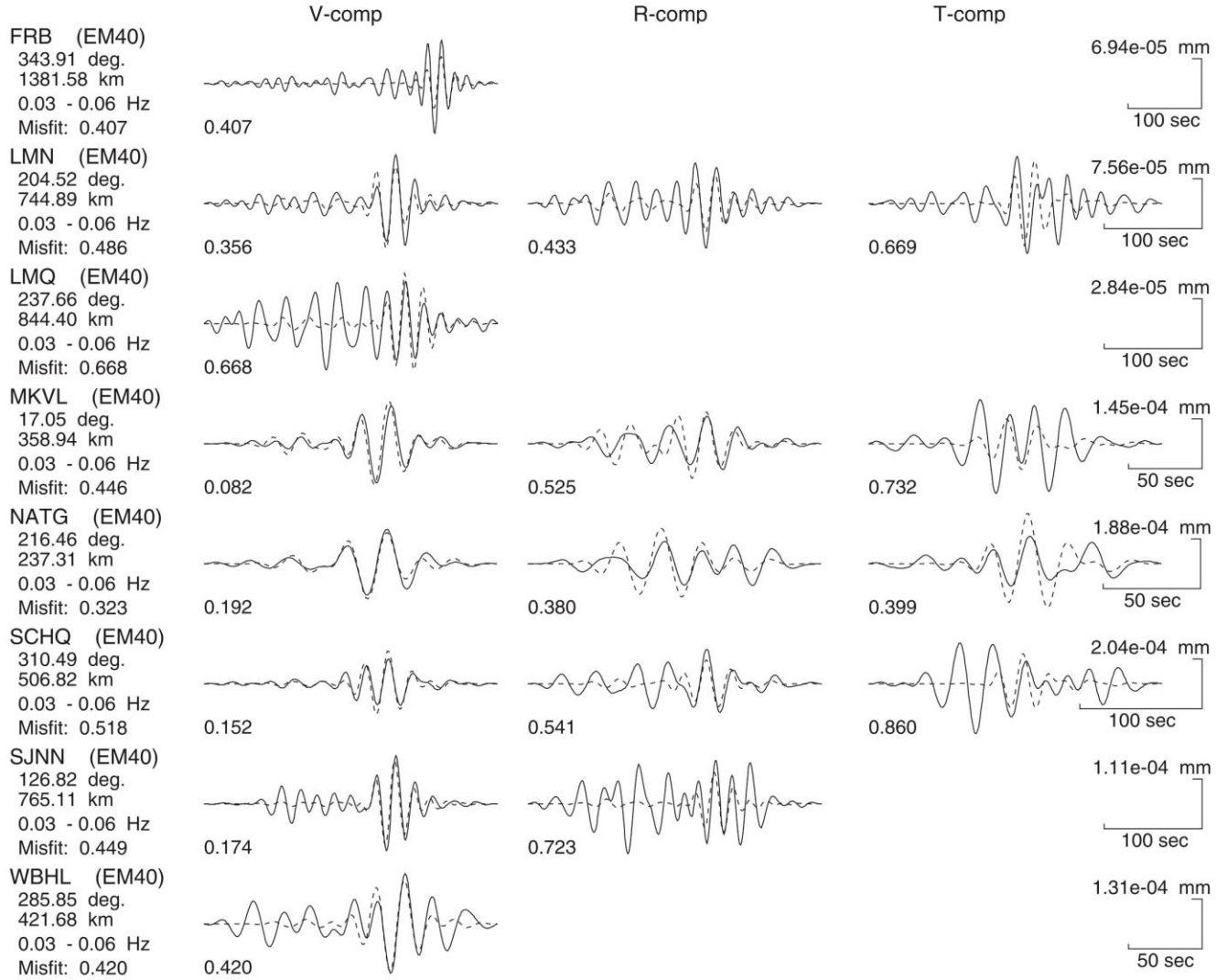
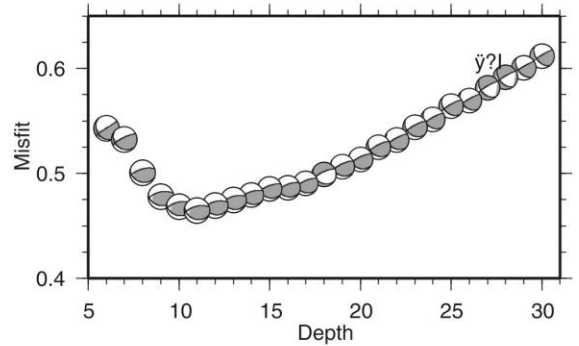
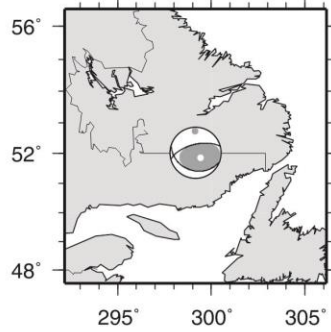
2012/05/02 00:03:40.9 (UT)
Epicenter: 51.91 -81.01
Depth: 29 km Mw: 4.13
Mo: 1.960e+15 Nt-m
Best double couple solutions
FP1: 183.44 51.31 -36.54
FP2: 298.30 62.31 -135.09
Iso.= 1.5 % CLVD= 43.4 %
Misfit= 0.661



Source Time Function: 1.00 1.00 1.00

Figure 2n

2012/07/08 11:13:38.5 (UT)
Epicenter: 52.02 -60.83
Depth: 11 km Mw: 3.91
Mo: 9.012e+14 Nt-m
Best double couple solutions
FP1: 107.86 31.43 118.21
FP2: 255.70 62.65 73.89
Iso.= -1.3 % CLVD= 29.0 %
Misfit= 0.465



Source Time Function: 1.00 1.00 1.00

Figure 2o

2012/09/02 19:53:0.3 (UT)

Epicenter: 81.90 -91.60

Depth: 13 km Mw: 4.28

Mo: 3.272e+15 Nt-m

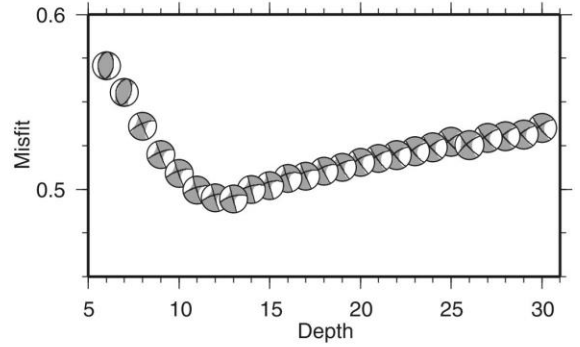
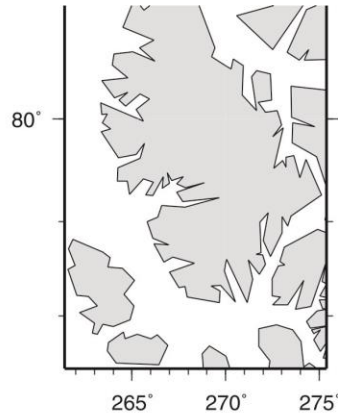
Best double couple solutions

FP1: 255.55 71.68 -177.81

FP2: 164.87 87.92 -18.33

Iso.= -0.1 % CLVD= 38.5 %

Misfit= 0.494



EUNU (EM35)

153.63 deg.

224.92 km

0.03 - 0.06 Hz

Misfit: 0.247

V-comp

0.079

RES (EM35)

186.92 deg.

807.96 km

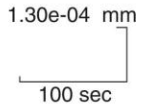
0.01 - 0.06 Hz

Misfit: 0.742



R-comp

T-comp



Source Time Function: 1.00 1.00 1.00

Figure 2p

2012/10/10 04:19:28.4 (UT)

Epicenter: 45.70 -73.27

Depth: 13 km Mw: 3.72

Mo: 4.804e+14 Nt-m

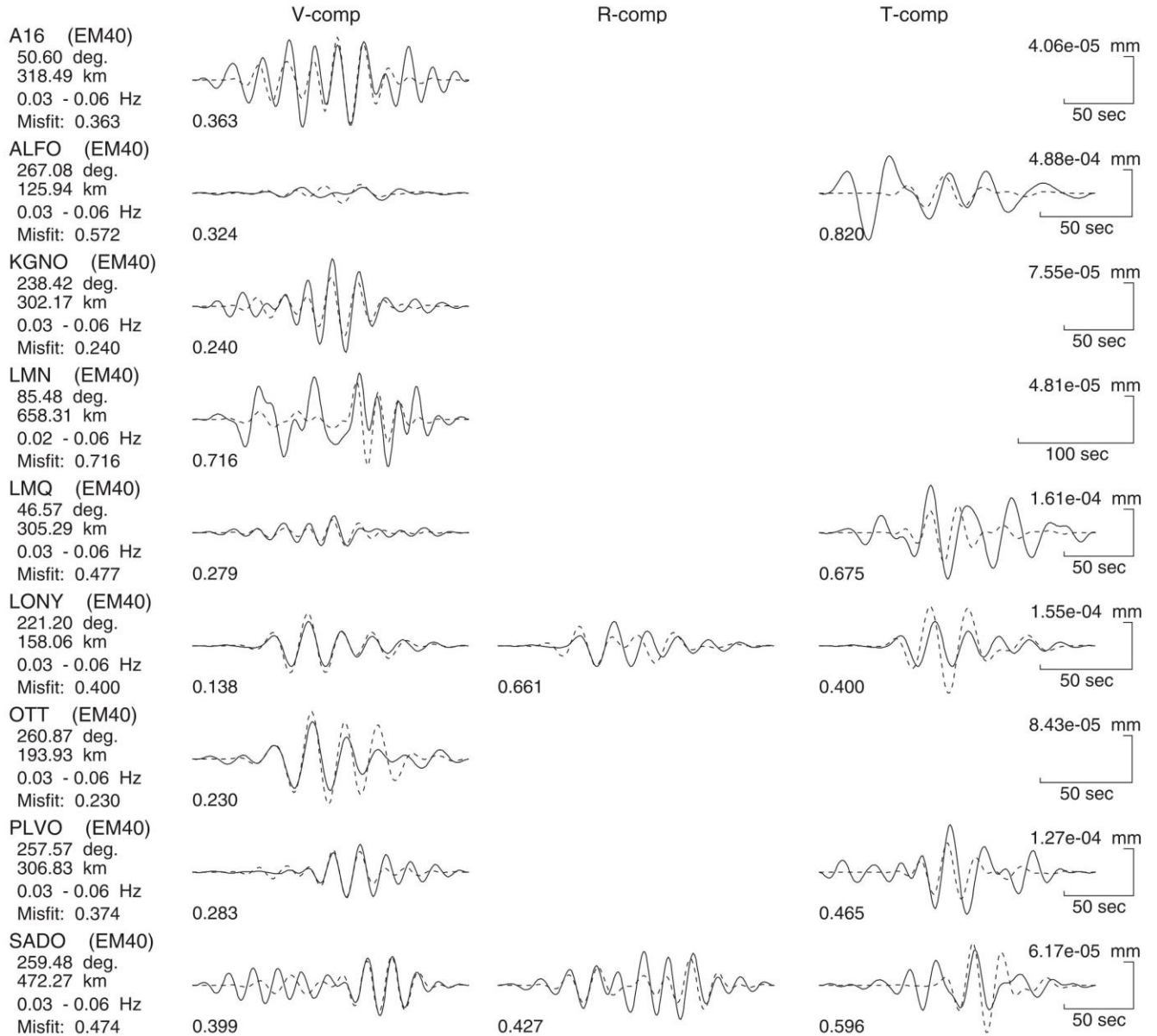
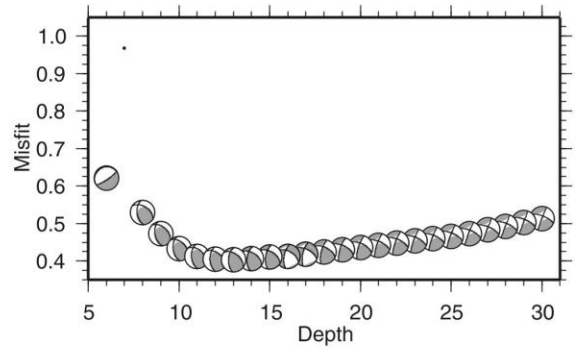
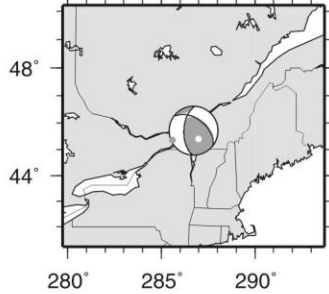
Best double couple solutions

FP1: 307.30 48.44 46.92

FP2: 181.95 56.87 127.61

Iso.= -0.7 % CLVD= 6.9 %

Misfit= 0.403



Source Time Function: 1.00 1.00 1.00

Figure 2q

2012/10/10 04:19:28.4 (UT)

Epicenter: 45.70 -73.27

Depth: 13 km Mw: 3.72

Mo: 4.804e+14 Nt-m

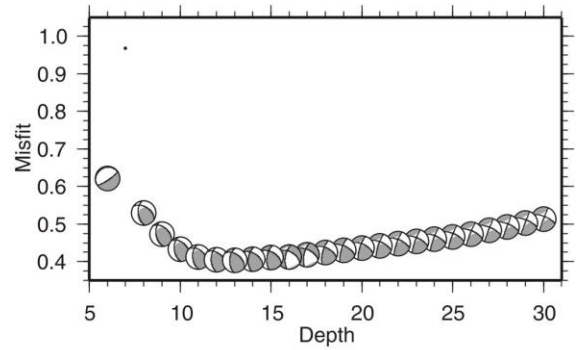
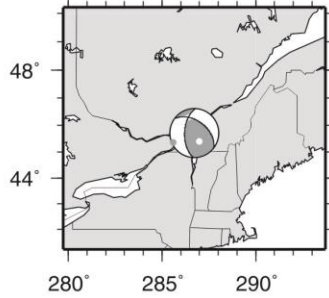
Best double couple solutions

FP1: 307.30 48.44 46.92

FP2: 181.95 56.87 127.61

Iso.= -0.7 % CLVD= 6.9 %

Misfit= 0.403



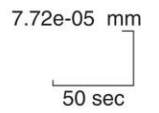
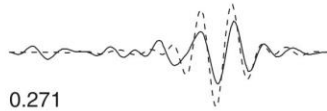
VABQ (EM40)
278.06 deg.
183.12 km
0.03 - 0.06 Hz
Misfit: 0.318

V-comp

R-comp

T-comp

VLDQ (EM40)
310.67 deg.
439.71 km
0.03 - 0.06 Hz
Misfit: 0.271



Source Time Function: 1.00 1.00 1.00

Figure 2q- continued

2012/11/06 09:05:27.9 (UT)

Epicenter: 45.60 -74.61

Depth: 8 km Mw: 3.86

Mo: 7.647e+14 Nt-m

Best double couple solutions

FP1: 304.74 42.73 85.22

FP2: 131.24 47.46 94.40

Iso.= -1.8 % CLVD= 55.3 %

Misfit= 0.586

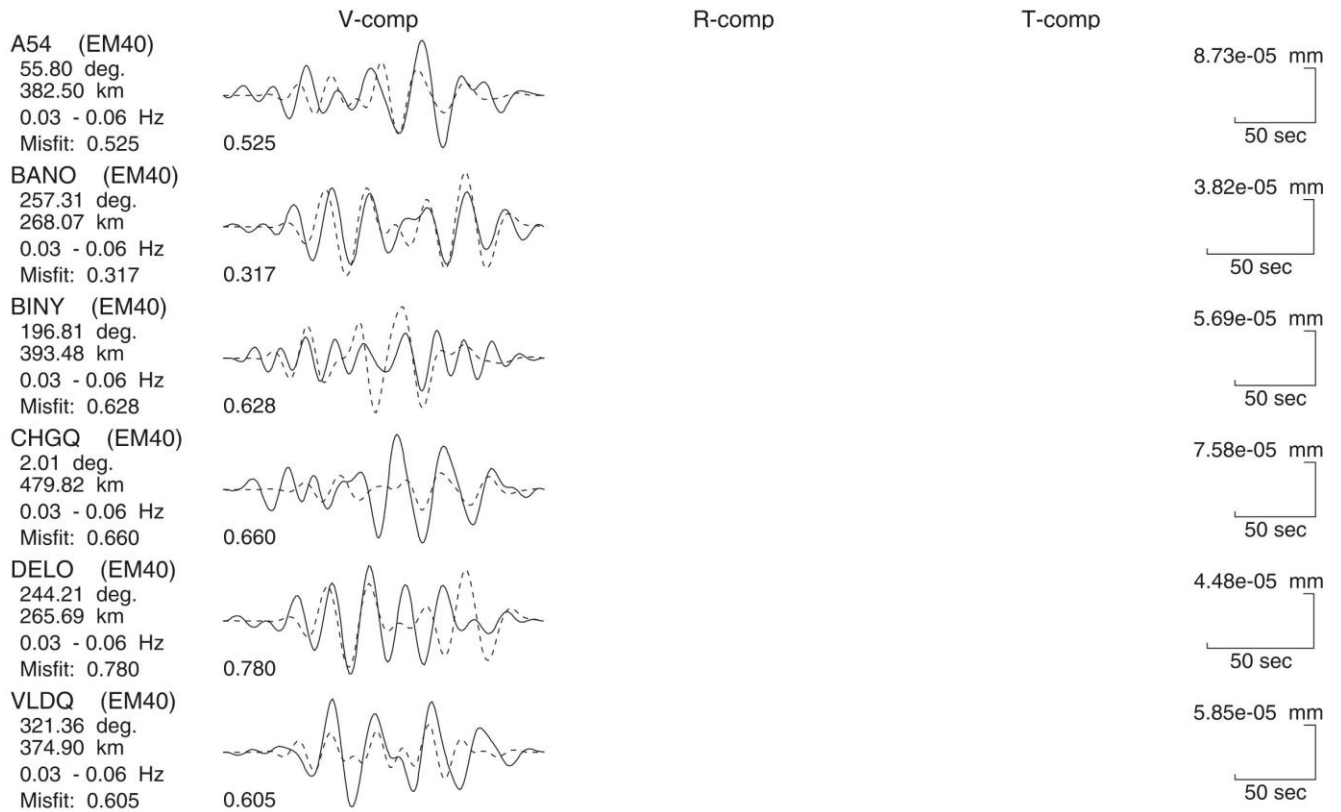
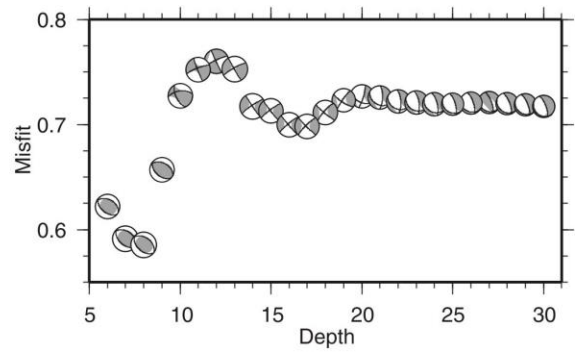
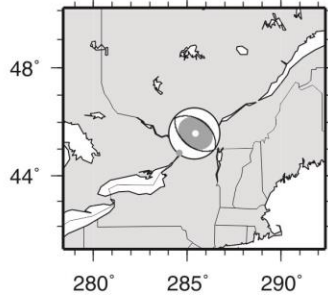


Figure 2r

2012/11/27 07:55:56.8 (UT)

Epicenter: 48.82 -67.34

Depth: 16 km Mw: 3.75

Mo: 5.236e+14 Nt-m

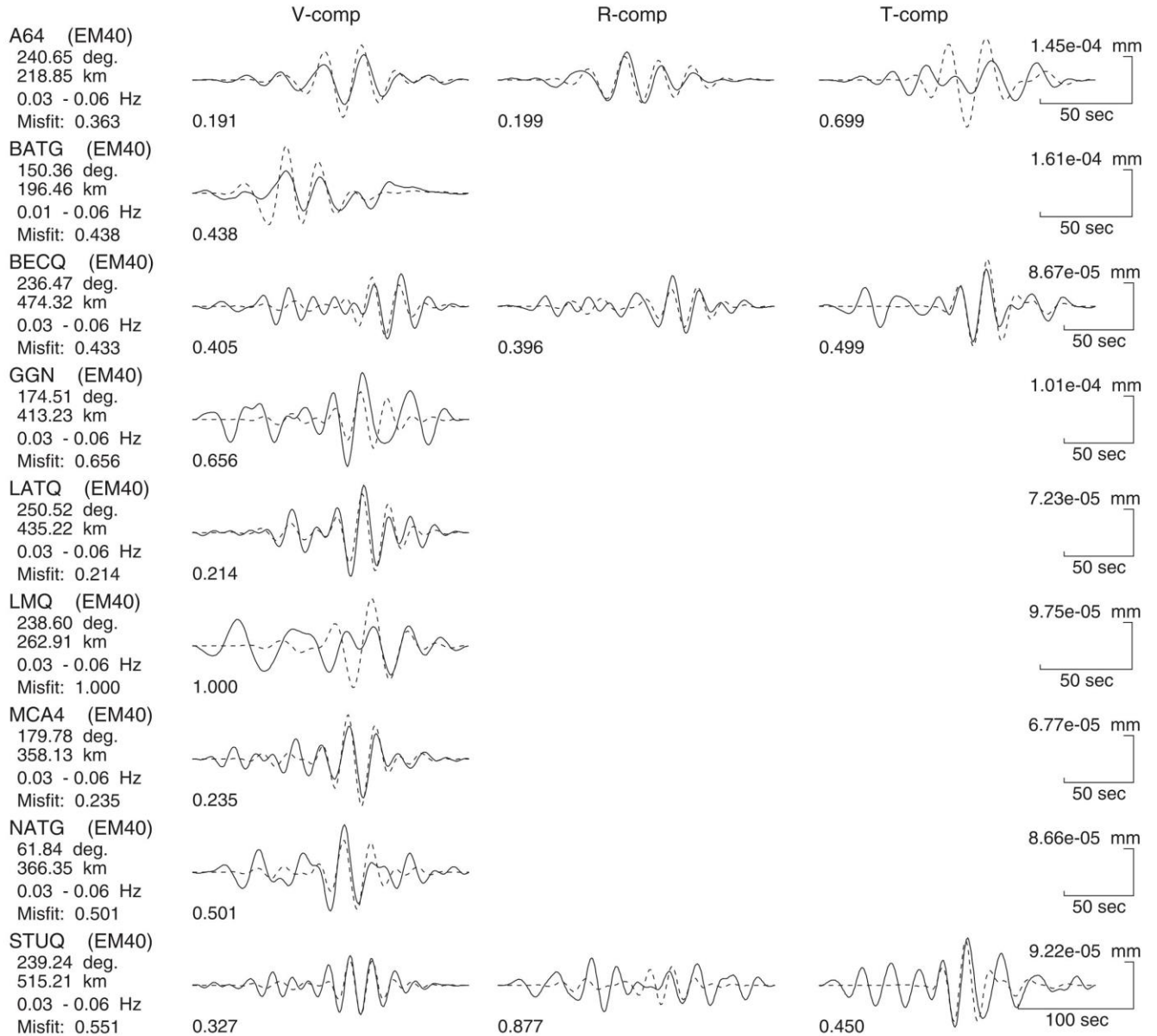
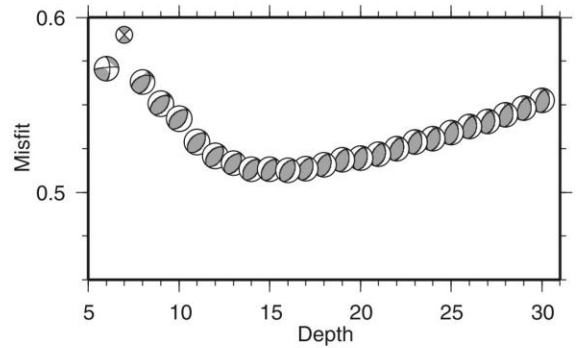
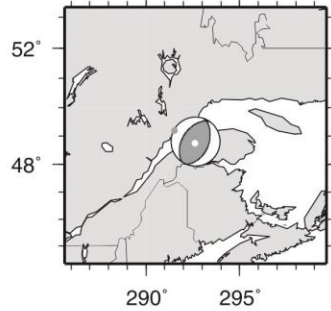
Best double couple solutions

FP1: 21.02 45.04 80.55

FP2: 214.28 45.74 99.34

Iso.= 1.1 % CLVD= 4.1 %

Misfit= 0.513



Source Time Function: 1.00 1.00 1.00

Figure 2s

2012/12/12 17:46:6.7 (UT)

Epicenter: 47.79 -70.05

Depth: 25 km Mw: 3.98

Mo: 1.153e+15 Nt-m

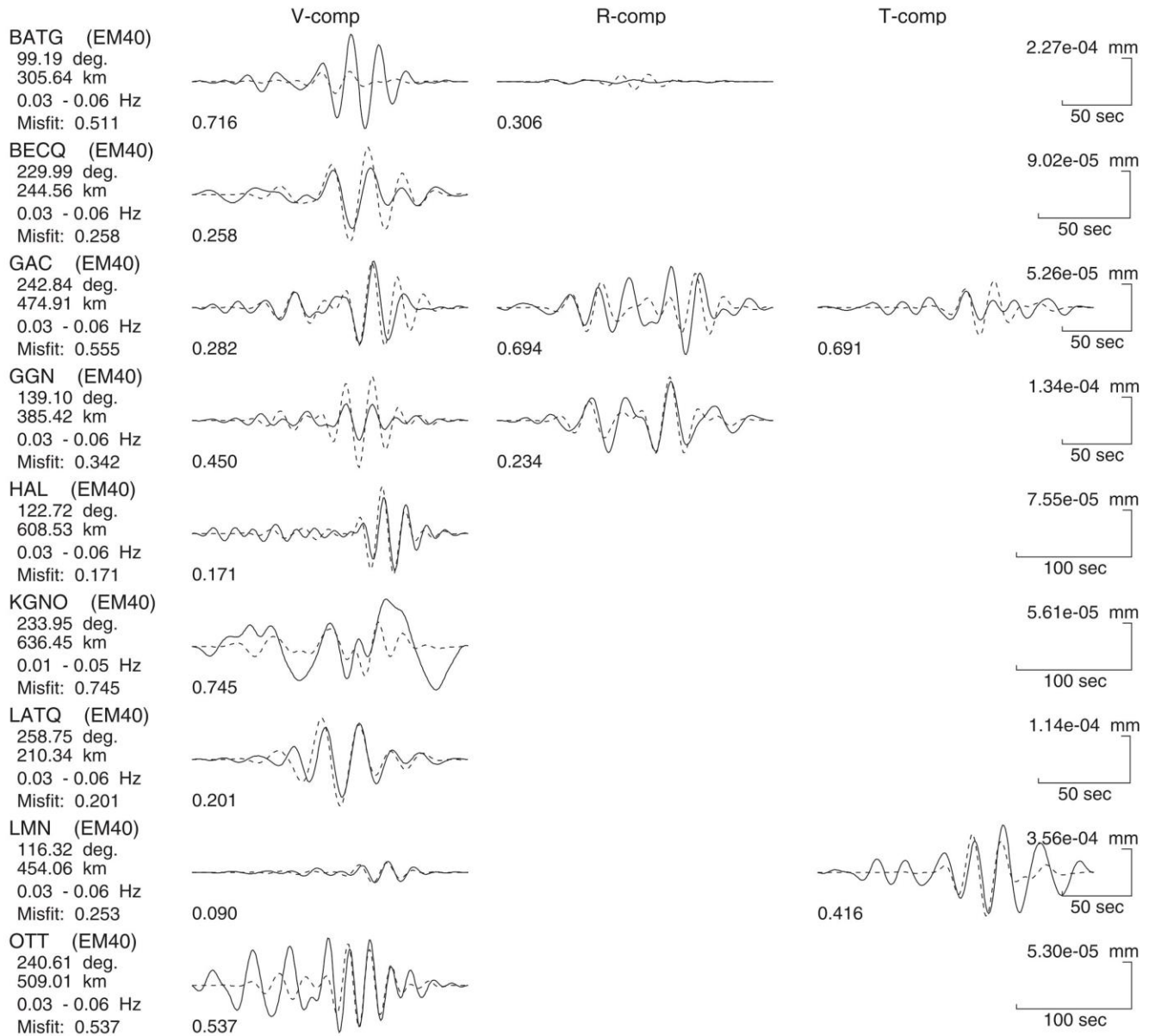
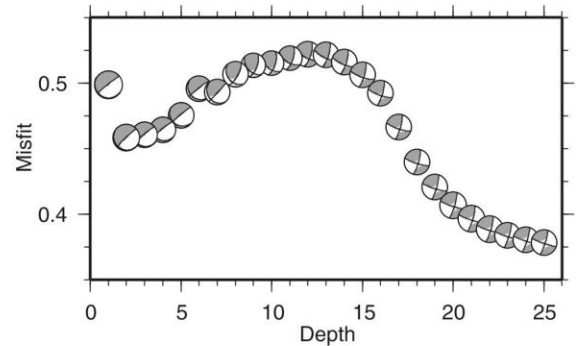
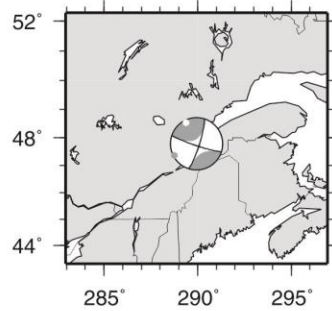
Best double couple solutions

FP1: 17.54 81.26 173.64

FP2: 108.51 83.72 8.79

Iso.= 0.1 % CLVD= 36.3 %

Misfit= 0.379



Source Time Function: 1.00 1.00 1.00

Figure 2t

2012/12/12 17:46:6.7 (UT)

Epicenter: 47.79 -70.05

Depth: 25 km Mw: 3.98

Mo: 1.153e+15 Nt-m

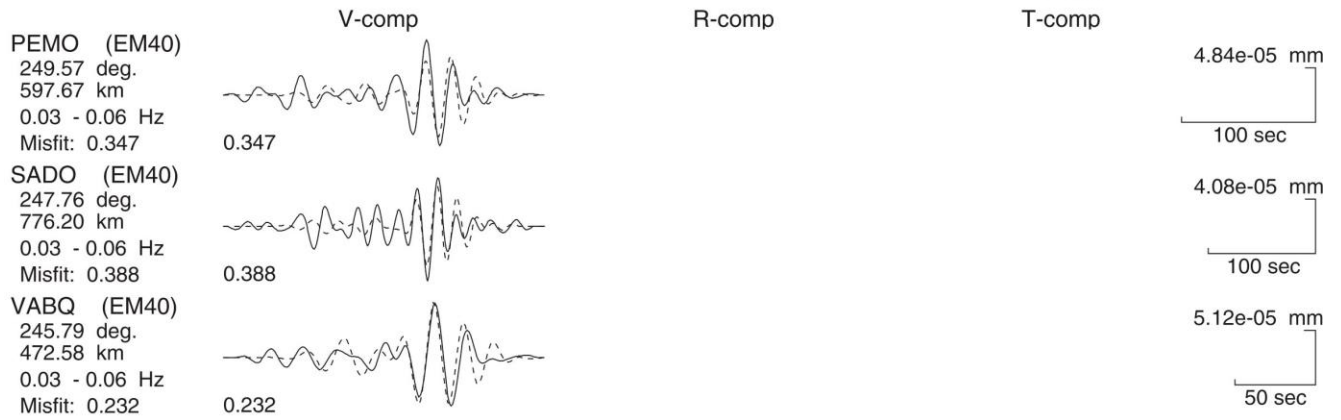
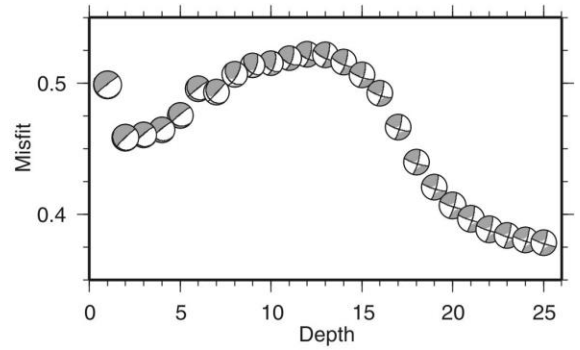
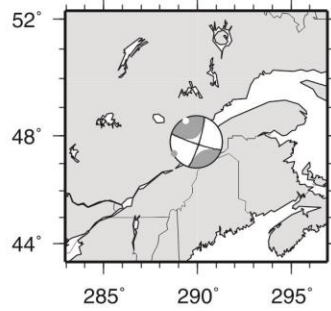
Best double couple solutions

FP1: 17.54 81.26 173.64

FP2: 108.51 83.72 8.79

Iso.= 0.1 % CLVD= 36.3 %

Misfit= 0.379



Source Time Function: 1.00 1.00 1.00

Figure 2t- continued

2013/03/29 06:17:46.4 (UT)

Epicenter: 49.86 -49.90

Depth: 18 km Mw: 4.50

Mo: 7.082e+15 Nt-m

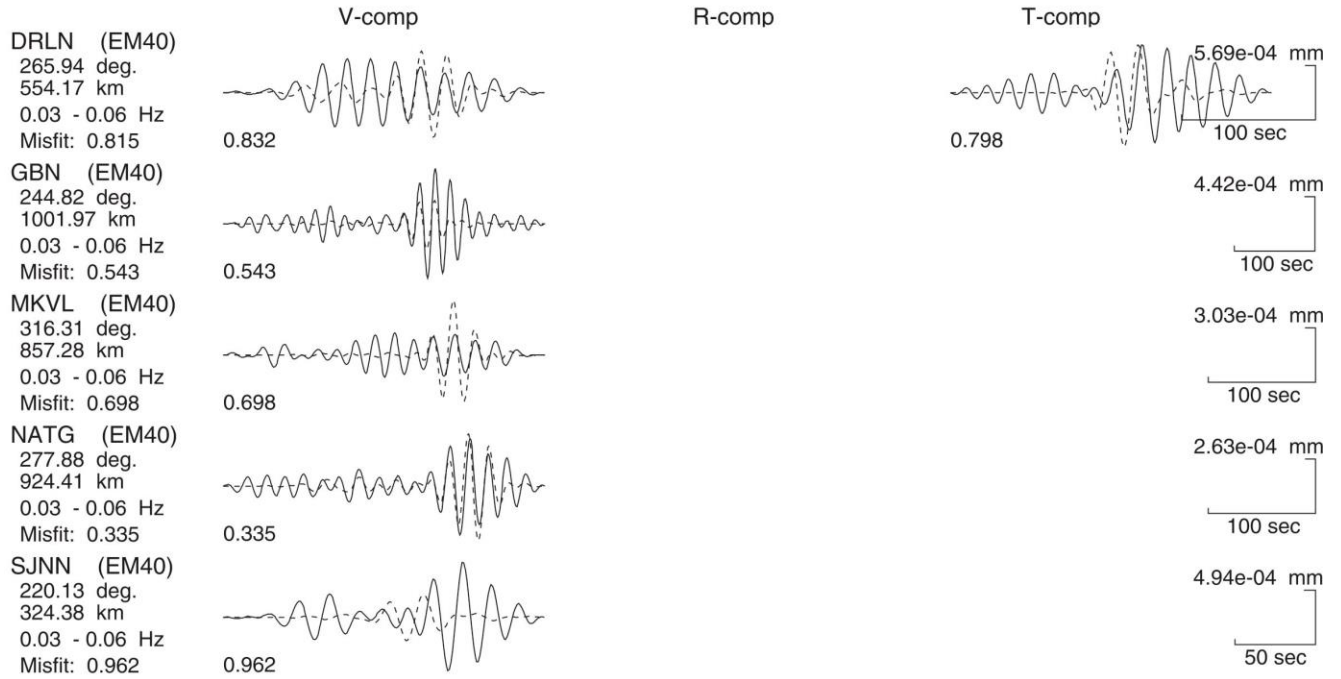
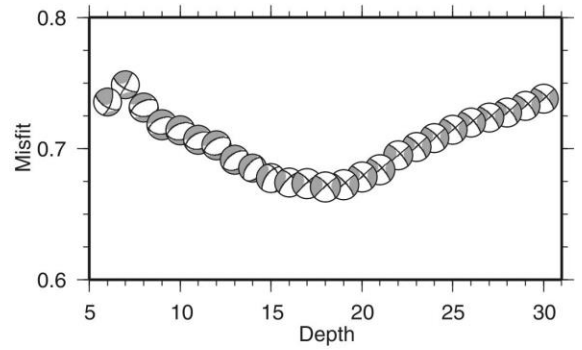
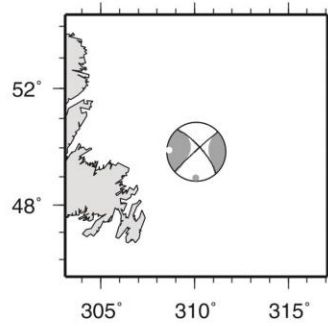
Best double couple solutions

FP1: 318.55 74.58 -176.44

FP2: 227.61 86.57 -15.45

Iso.= -0.2 % CLVD= 40.5 %

Misfit= 0.671



Source Time Function: 1.00 1.00 1.00

Figure 2u

2013/05/17 13:43:23.8 (UT)

Epicenter: 45.76 -76.32

Depth: 12 km Mw: 4.55

Mo: 8.372e+15 Nt-m

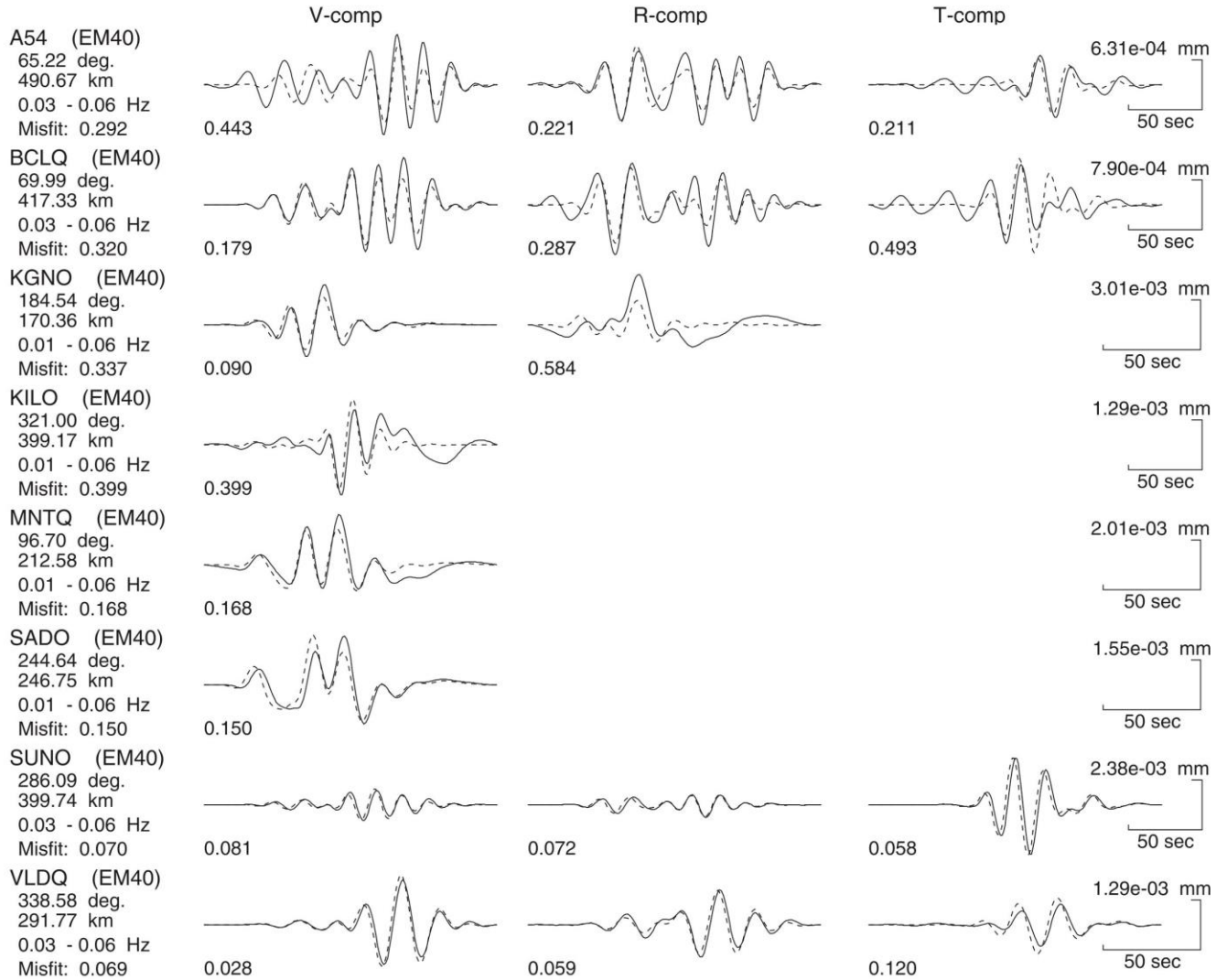
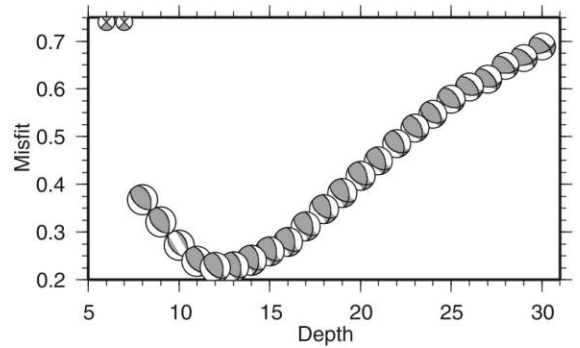
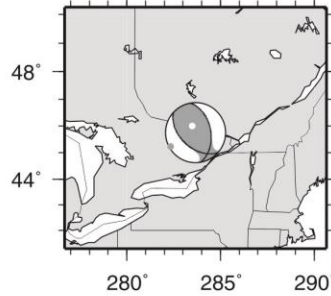
Best double couple solutions

FP1: 350.40 47.91 118.03

FP2: 131.94 49.08 62.52

Iso.= -0.9 % CLVD= 23.9 %

Misfit= 0.226



Source Time Function: 1.00 1.00 1.00

Figure 2v

2013/05/17 13:53:55.1 (UT)

Epicenter: 45.75 -76.35

Depth: 8 km Mw: 3.64

Mo: 3.543e+14 Nt-m

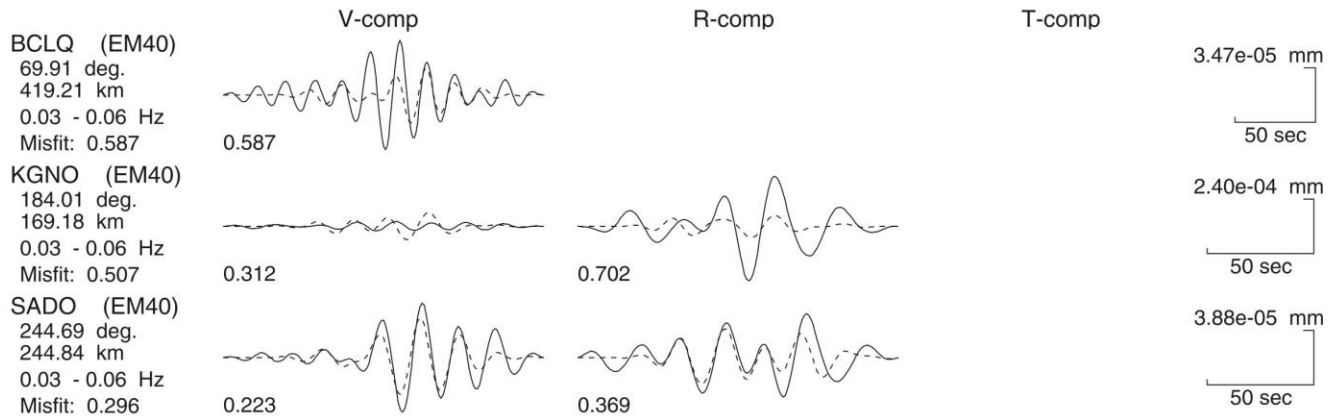
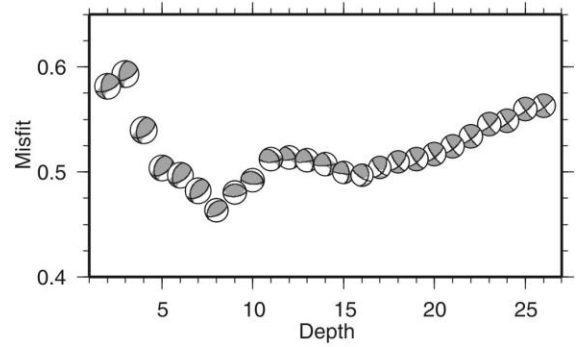
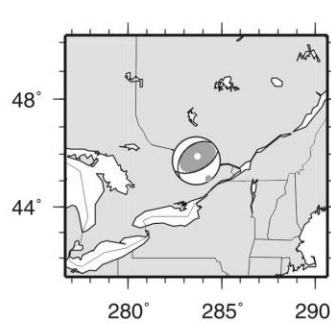
Best double couple solutions

FP1: 221.27 35.27 70.56

FP2: 64.65 57.00 103.25

Iso.= -1.6 % CLVD= 22.4 %

Misfit= 0.463



Source Time Function: 1.00 1.00 1.00

Figure 2w

2013/07/11 20:16:7.0 (UT)

Epicenter: 47.81 -70.05

Depth: 12 km Mw: 3.76

Mo: 5.462e+14 Nt-m

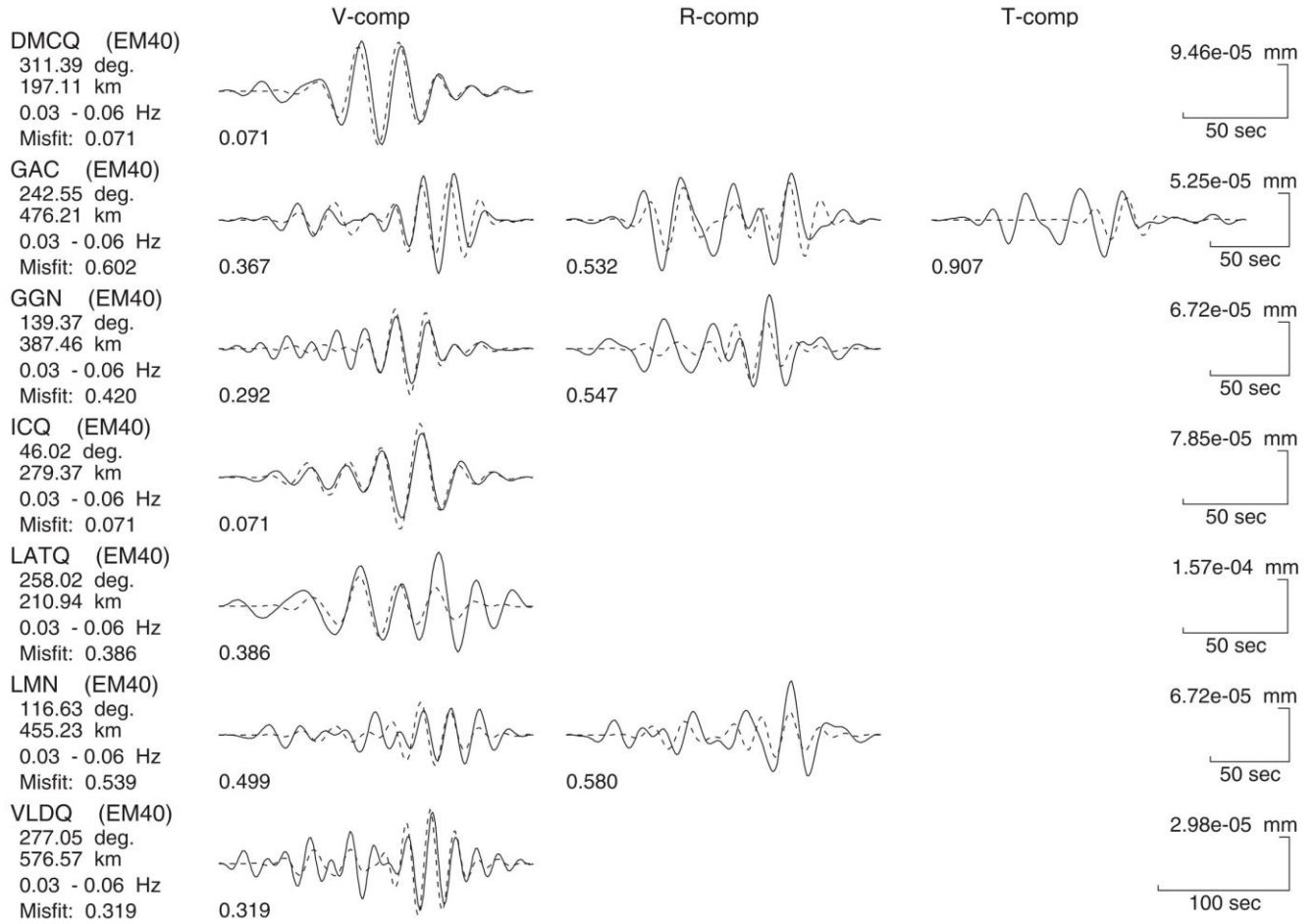
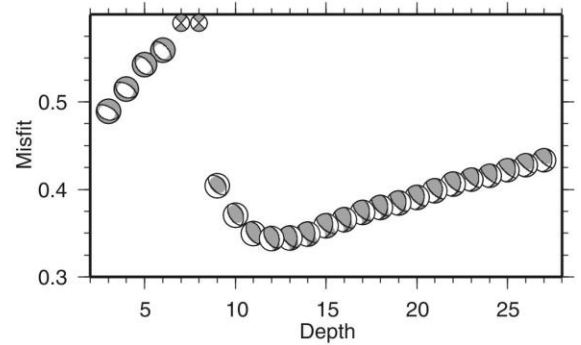
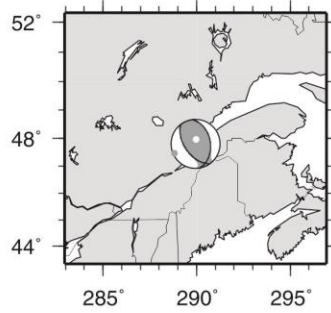
Best double couple solutions

FP1: 350.23 39.96 110.44

FP2: 144.31 53.00 73.69

Iso.= 2.5 % CLVD= 25.4 %

Misfit= 0.344



Source Time Function: 1.00 1.00 1.00

Figure 2x

2013/08/29 04:47:26.5 (UT)

Epicenter: 47.51 -47.92

Depth: 6 km Mw: 4.44

Mo: 5.782e+15 Nt-m

Best double couple solutions

FP1: 178.94 9.68 170.24

FP2: 278.56 88.37 80.46

Iso.= -0.4 % CLVD= 2.2 %

Misfit= 0.470

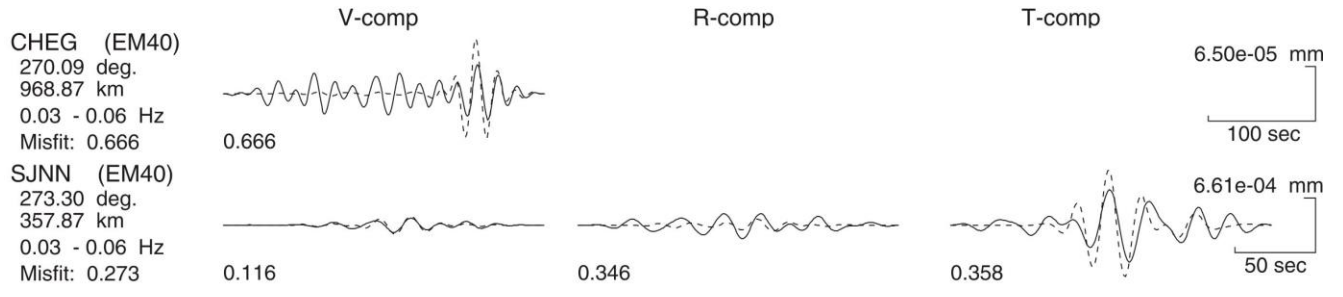
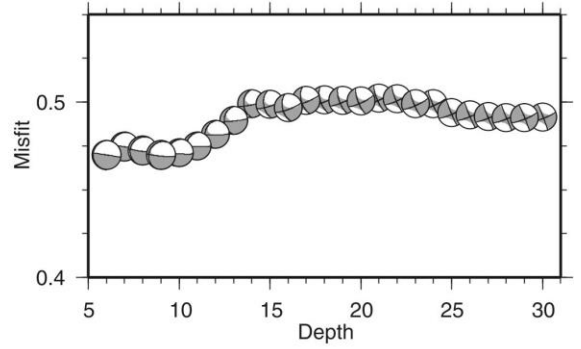
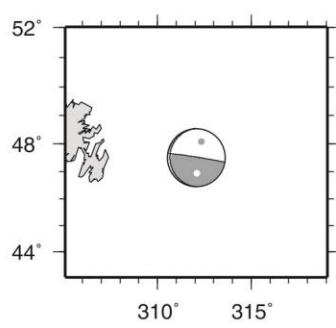


Figure 2y

2013/08/29 08:56:24.8 (UT)

Epicenter: 47.55 -48.03

Depth: 14 km Mw: 4.45

Mo: 5.962e+15 Nt-m

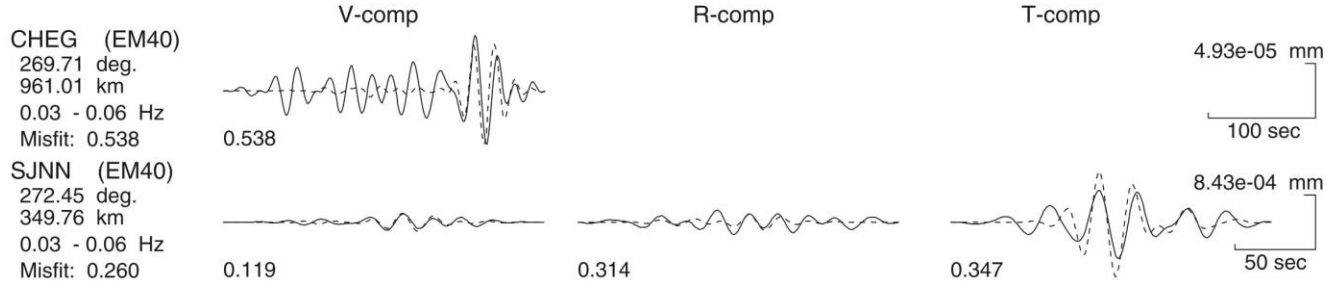
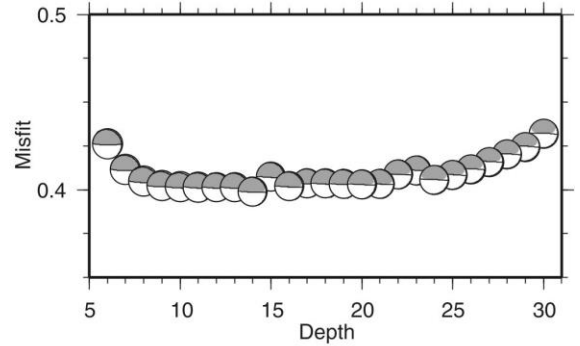
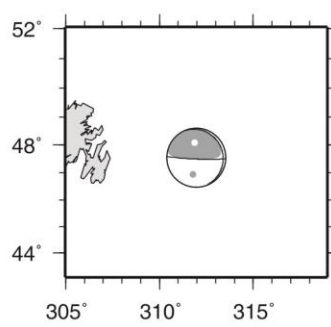
Best double couple solutions

FP1: 338.24 10.33 155.60

FP2: 92.28 85.75 80.57

Iso.= -0.0 % CLVD= 10.5 %

Misfit= 0.399



Source Time Function: 1.00 1.00 1.00

Figure 2z

2013/09/21 14:48:24.0 (UT)

Epicenter: 49.88 -66.12

Depth: 20 km Mw: 4.04

Mo: 1.440e+15 Nt-m

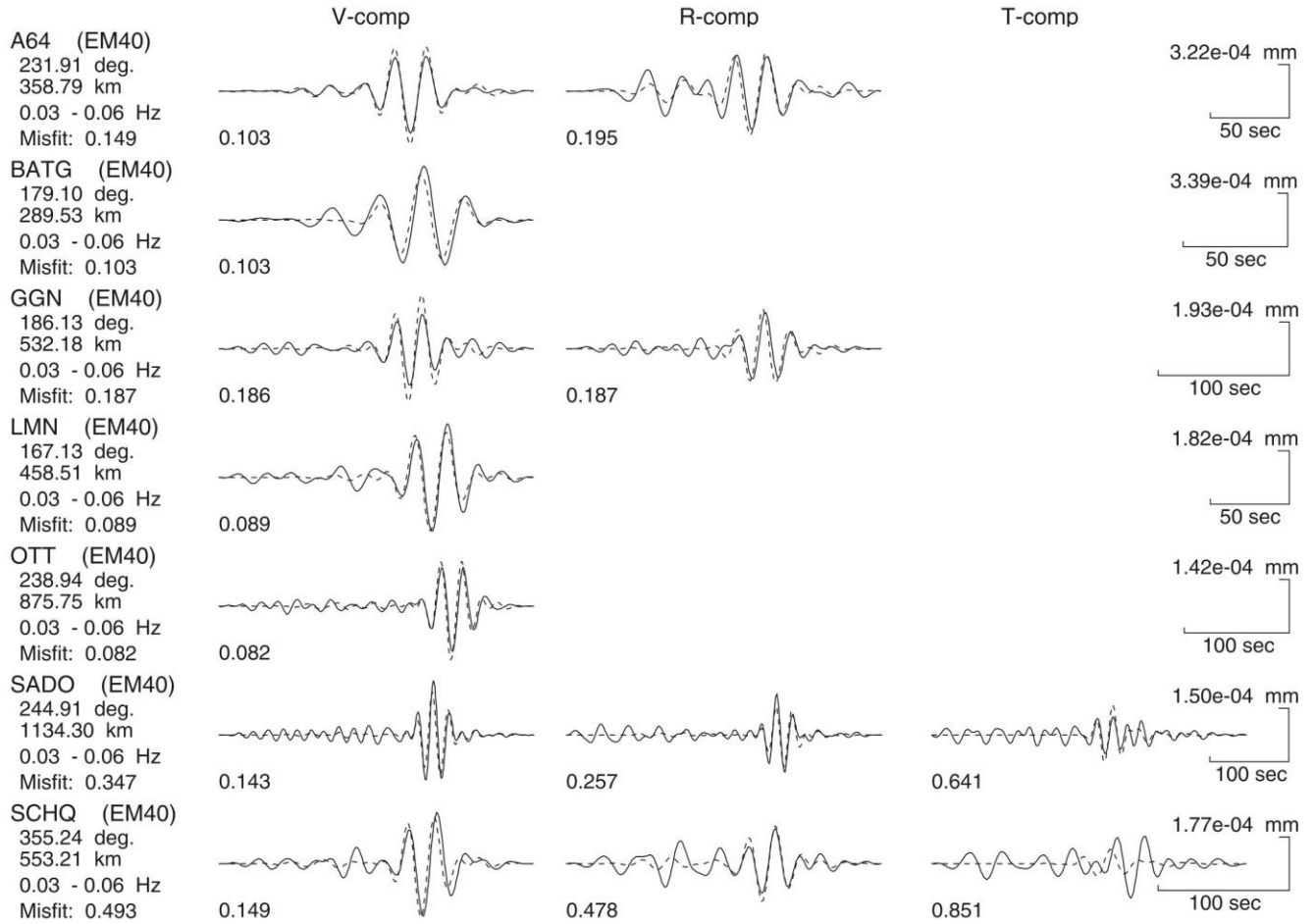
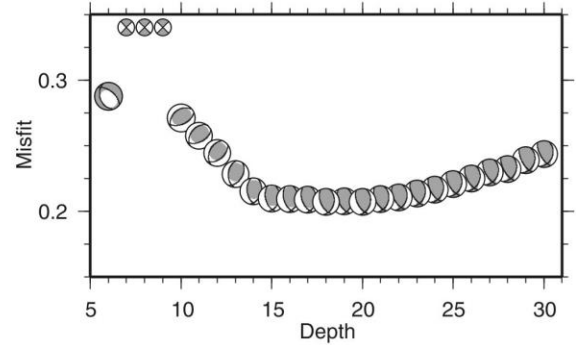
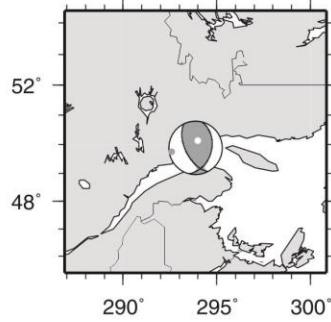
Best double couple solutions

FP1: 14.43 39.43 124.36

FP2: 152.92 58.37 65.10

Iso.= 1.0 % CLVD= 6.9 %

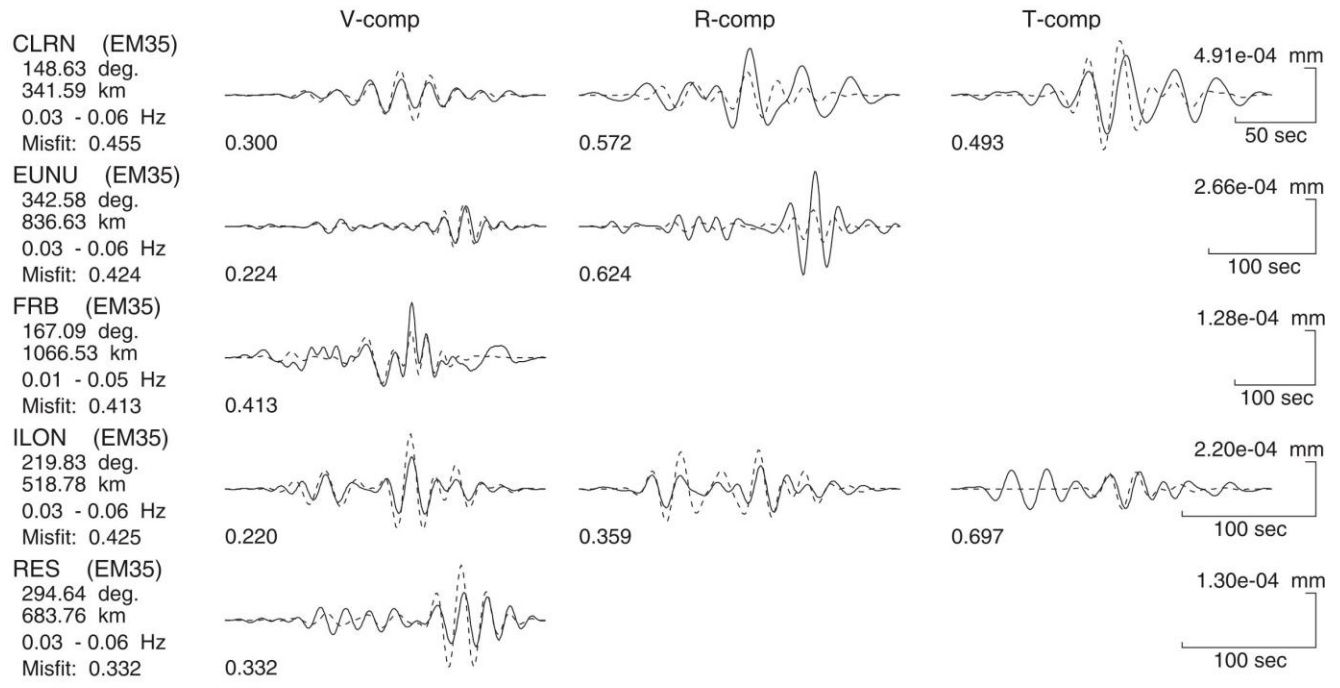
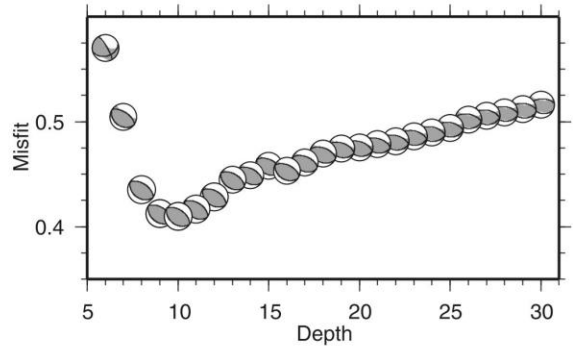
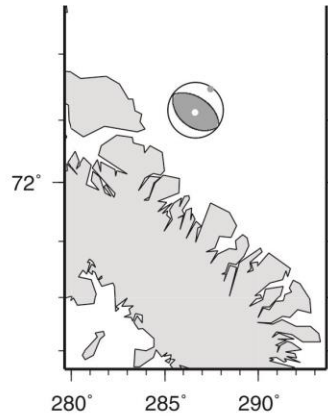
Misfit= 0.207



Source Time Function: 1.00 1.00 1.00

Figure 2aa

2013/10/30 11:46:26.1 (UT)
Epicenter: 73.15 -73.36
Depth: 10 km Mw: 4.24
Mo: 2.804e+15 Nt-m
Best double couple solutions
FP1: 127.52 38.43 93.02
FP2: 303.66 51.63 87.60
Iso.= 1.2 % CLVD= 3.0 %
Misfit= 0.410



Source Time Function: 1.00 1.00 1.00

Figure 2bb

Detailed Studies

Several of the earthquakes included in this study have been the focus of in-depth research studies. They are summarized briefly below and interested readers are encouraged to consult the references for further information.

The two Gulf of Maine earthquakes that occurred on 12 April 2012 were part of a swarm that is under investigation by Napoli and Ebel (2014). Their project is ongoing and is focused on obtaining improved hypocentral locations for all events in the swarm and focal mechanisms for the larger ones.

The earthquakes of 10 October and 6 November 2012 were studied by Bent et al. (2014a). Both were felt in the Montreal and Ottawa regions and generated considerable albeit short-lived attention from the media and public. In both cases, the source parameters obtained via RCMT inversion are consistent with those obtained through other methods.

The 17 May 2013 Ladysmith, Quebec earthquake and its aftershocks have been the subject of several research studies each with a slightly different emphasis (Atkinson et al., 2014, Bent et al., 2014b, Ma and Audet, 2014) but in general agreement with each other with respect to faulting and hypocentral parameters. It should also be noted that the moment tensor solution of Herrmann (2014) for the mainshock in his catalog of eastern North American earthquakes is very similar to the one derived in the present study.

Summary

Regional moment tensor solutions have been determined for twenty-eight moderate earthquakes occurring in southeastern and northeastern Canada from 2011 through 2013. These moment tensor solutions include focal mechanisms, depths and moment magnitudes which provide input into further studies regarding seismic hazard, regional seismotectonics or stress field to name a few. These results are particularly valuable in regions such as the north where there have been considerable difficulties in obtaining these parameters through other methods. It is anticipated that this paper will be the first in a series of annual updates but other methods of disseminating the data, such as an online database, are being explored.

Acknowledgments

I thank Honn Kao for his constructive review of the manuscript.

The facilities of the IRIS Data Management System, and specifically the IRIS Data Management Center, were used for access to waveforms and metadata required in this study from the following stations: WES (the New England Seismic Network) and HRV (the IRIS USGS network). The IRIS DMS is funded through the National Science Foundation and specifically the GEO Directorate through the Instrumentation and Facilities Program of the National Science Foundation under Cooperative Agreement EAR-1063471. Some activities

of IRIS are supported by the National Science Foundation EarthScope Program under Cooperative Agreements EAR-0733069, EAR-1261681.

References

- Atkinson, G. M., K. Assatourians and M. Lamontagne (2014). Characteristics of the 17 May 2013 M 4.5 Ladysmith, Quebec, Earthquake, *Seismological Research Letters*, **85**, 755-762, doi:10.1785/0220130160.
- Bent, A. L. (2011). Moment magnitude (M_W) conversion relations for use in hazard assessment in eastern Canada, *Seismological Research Letters*, **82**, 984-990, doi:10.1785/gssrl.83.3.984.
- Bent, A. L., J. Drysdale and H. K. C. Perry (2003). Focal mechanisms for Eastern Canadian Earthquakes; 1994-2000, *Seismological Research Letters*, **74**, 452-468.
- Bent, A. L., V. Peci, S. Halchuk and S. Hayek (2014a). Two Moderate Earthquakes near Montreal: 10 October and 6 November, 2012, *Seismological Research Letters*, **85**, 940-947, doi:10.1785/2220110131.
- Bent, A. L., M. Lamontagne, V. Peci, S. Halchuk, G. Brooks, D. Motazedian, J. Hunter, J. Adams, C. Woodgold, J. Drysdale, S. Hayek and E. Edwards (2014b). The 17 May 2013, Ladysmith, Quebec Earthquake, *Seismological Research Letters*, submitted.
- Brune, J. and J. Dorman (1963). Seismic waves and earth structure in the Canadian shield, *Bulletin of the Seismological Society of America*, **53**, 167-210.
- Canadian National Earthquake Database (2014). On-line database, <http://www.earthquakescanada.nrcan.gc.ca/stndon/NEDB-BNDS/bull-eng.php>, last accessed 8 July 2014.
- Canadian National Waveform Archive (2014). On-line database, http://www.earthquakescanada.nrcan.gc.ca/stndon/wf_index-eng.php, last accessed 8 July 2014.
- Herrmann, R. B. (2014). Moment Tensors for North America. Saint-Louis University, http://www.eas.slu.edu/eqc/eqc_mt/MECH.NA/MECHFIG/mech.html (on line database last accessed 8 July 2014).
- Kao, H., P.-R. Juan, K.-F. Ma, B.-S. Huang and C.-C. Liu (1998). Moment-tensor inversion for offshore earthquakes east of Taiwan and their implications to regional collision, *Geophysical Research Letters*, **25**, 3619-3622.
- Kao, H., Y.-H. Liu and P.-R. Juan (2001). Source parameters of regional earthquakes in Taiwan: January-December 1997, *Terrestrial, Atmospheric and Oceanic Sciences*, **12**, 431-439.
- Kao, H., S.-J. Shan, A. Bent, C. Woodgold, G. Rogers, J. F. Cassidy and J. Ristau (2012). Regional Centroid-Moment-Tensor Analysis for Earthquakes in Canada and Adjacent

Regions: An Update, *Seismological Research Letters*, **83**, 505-515, doi:10.1785/gssrl.83.3.505.

- Ma, S. and P. Audet (2014). The 5.2 magnitude earthquake near Ladysmith, Quebec, 17 May 2013: implications for the seismotectonics of the Ottawa-Bonnechere Graben, *Canadian Journal of Earth Sciences*, **51**, 439-451, dx.doi.org/10.1139/cjes-2013-0215.
- Napoli, V. J. and J. E. Ebel (2014). Relative Locations of Earthquakes and Potential Driving Mechanisms of Seismicity Along the Northeast U. S. Atlantic Passive Margin, *Seismological Research Letters*, **85**, 514.
- Nuttli, O. (1973). Seismic wave attenuation and magnitude relations for eastern North America, *Journal of Geophysical Research*, **78**, 876-885.
- Ristau, J. P. (2004). Seismotectonics of western Canada from regional moment tensor inversion, *Ph.D. Thesis*, University of Victoria, Victoria BC, Canada.
- Ristau, J., G. Rogers and J. F. Cassidy (2007). Stress in western Canada from regional moment tensor analysis, *Canadian Journal of Earth Sciences*, **44**, 127-148, doi:10.1139/E1106-1057.

Appendix

Complete Moment Tensor Solution for Earthquakes in Table 1

For each event listed in Table 1 the full moment tensor from the RCMT inversion is given. The format is described below (written communication from Kao, 2005). The earthquakes are identified by date of occurrence. In the case of two events on the same day, the origin time (hh:mm) is added for clarification.

Line 1-25: depth, E_nosh, E_sh, Mxx, Myy, Mzz, Mxy, Mxz, Myz
(E_nosh: average misfit without any shift of synthetic seismograms)
(E_sh: average misfit with shift of synthetic seismograms)
< repeat for each depth >
Line 26: station(i), ishift(i), E(i), Ez(i), Er(i), Et(i)
(station: station name)
(ishift: number of shifted points,
original position + ishift = final position)
(E: average misfit for this station at the best-fitting depth)
(Ez: Z-comp misfit for this station at the best-fitting depth)
(Er: R-comp misfit for this station at the best-fitting depth)
(Et: T-comp misfit for this station at the best-fitting depth)
< repeat for each station >

Author's note: the misfit for each component is given for all stations used regardless of whether the component was used in the inversion; the average misfit, both for each station and overall, is calculated only from the components that were used

2011-03-16

1	0.8510	0.6374	0.34660	7.04622	-6.54885	-44.63536	-39.92865	-37.01326
2	0.8577	0.6430	-1.19218	6.91394	-4.00136	-46.06952	-17.84039	-17.78797
3	0.8566	0.6363	-4.07324	6.39052	0.25275	-48.23475	-11.28558	-10.07715
4	0.8578	0.6326	-8.82415	5.22291	6.71212	-51.29597	-7.27943	-4.48480
5	0.8578	0.6326	-15.38858	3.64239	14.79313	-56.40787	-5.19865	-2.34293
6	0.8597	0.6380	-18.59121	8.52683	11.80591	-66.26645	-4.21351	-0.62609
7	0.8627	0.6483	-23.36347	15.04869	8.33699	-80.28926	-2.76898	0.74364
8	0.8719	0.6572	-24.22569	28.49839	-5.90057	-98.19150	-1.39167	1.70223
9	0.8820	0.6561	-23.14523	43.02276	-22.22621	-113.76361	-0.25330	2.50658
10	0.8907	0.6486	-21.56369	54.31917	-35.24705	-123.50436	0.92820	4.17849
11	0.9003	0.6478	-20.27316	62.00652	-44.37700	-129.01683	1.90271	4.80578
12	0.9099	0.6531	-18.07692	65.56146	-50.37261	-129.20495	2.51935	5.50928
13	0.9176	0.6663	-14.66628	64.98563	-53.60705	-123.36628	3.08639	6.16699
14	0.9103	0.6781	-14.03321	82.93605	-74.02453	-153.12129	4.97098	9.21799
15	0.9067	0.6827	-7.66158	74.55012	-72.67121	-134.69643	5.77715	9.98786
16	0.9021	0.6950	0.74401	71.71324	-79.08559	-121.68210	8.29409	11.81519
17	0.8978	0.7063	10.05516	62.29037	-80.21915	-101.77572	10.13190	14.20056
18	0.8934	0.7175	18.46626	48.48112	-75.48617	-75.00287	11.98210	15.87435
19	0.8905	0.7189	24.52088	35.39314	-68.63518	-50.65008	12.42447	15.90318
20	0.8873	0.7257	30.06757	23.93297	-63.69304	-28.67327	14.53503	17.71206
21	0.8873	0.7335	32.60255	14.75309	-57.56159	-10.85683	15.84719	19.23750
22	0.8871	0.7396	33.40994	9.86551	-53.81060	0.10790	16.63782	21.51998
23	0.8869	0.7483	33.59370	6.51654	-50.70428	8.36065	17.40950	23.90361
24	0.8853	0.7528	33.29498	4.57986	-48.25496	14.16291	18.34622	26.08704
25	0.8806	0.7571	34.21935	3.55364	-48.25178	19.19692	19.61787	30.12282
chgq	1	0.757699	0.757699	0.982753	1.000000			
kgno	-7	0.520924	0.520924	0.893677	0.869435			
latq	0	0.562824	0.584956	0.467755	0.635761			
lmq	-1	0.851289	0.851289	0.984247	0.984364			
peco	-7	0.450260	0.450260	0.983031	0.988430			
sado	-7	0.652793	0.469907	0.835679	1.000000			

2011-04-15

6	0.5753	0.4979	92.14630	-18.77139	-73.52006	21.86735	-282.98626	-119.44681
7	0.5794	0.4983	83.87326	-17.83255	-66.13836	15.93370	-250.79934	-106.09070
8	0.5799	0.4979	74.96136	-17.69479	-57.33546	10.04398	-225.75865	-96.42099
9	0.5794	0.4976	69.71830	-17.53773	-52.22669	5.67859	-204.69328	-87.72105
10	0.5771	0.4975	64.25865	-18.17821	-46.11099	1.50609	-187.51314	-81.19732
11	0.5743	0.4972	61.21740	-18.37702	-42.85791	-1.89496	-172.49806	-75.05754
12	0.5742	0.4971	61.32366	-20.46931	-40.86287	-5.34068	-168.72712	-74.26423
13	0.5702	0.4968	59.49183	-21.01994	-38.47182	-8.38910	-156.69822	-69.36576
14	0.5669	0.4982	57.95528	-22.70724	-35.24119	-10.93750	-146.33891	-65.54209
15	0.5602	0.4989	58.28893	-24.70670	-33.56966	-14.22573	-134.33575	-60.72562
16	0.5599	0.5014	67.90749	-29.09462	-38.79503	-13.83588	-150.91964	-69.15078
17	0.5628	0.5017	65.97540	-28.87960	-37.07456	-16.15810	-148.19822	-68.04841
18	0.5622	0.5041	66.11719	-31.18758	-34.90454	-18.24664	-142.94176	-66.33397
19	0.5604	0.5046	65.95486	-32.30299	-33.62550	-21.11376	-137.65117	-64.29235
20	0.5591	0.5073	67.34439	-35.12183	-32.19142	-22.72637	-132.69597	-62.66624
21	0.5568	0.5079	67.86530	-36.58071	-31.25148	-25.44640	-127.70215	-60.75290
22	0.5510	0.5088	68.27501	-37.94851	-30.29124	-28.44088	-123.20985	-58.84300
23	0.5518	0.5120	74.72776	-43.50628	-31.18087	-31.12318	-124.45987	-60.17390
24	0.5491	0.5127	76.14972	-45.53773	-30.57336	-33.99241	-119.50486	-58.30184
25	0.5510	0.5144	78.96692	-48.57042	-30.35576	-34.29194	-118.15510	-58.05547
26	0.5488	0.5154	81.09944	-51.03663	-30.02656	-37.19148	-113.37696	-56.26586
27	0.5478	0.5180	86.44172	-55.94137	-30.46519	-37.96824	-108.75029	-54.71140
28	0.5468	0.5172	93.54320	-61.69408	-31.81874	-42.93980	-109.03543	-55.49277
29	0.5451	0.5169	96.93131	-65.08146	-31.82562	-46.20329	-104.20213	-53.69677
30	0.5422	0.5171	108.09912	-74.02663	-34.04826	-49.79954	-104.32020	-54.36357
ggn	1	0.462631	0.264864	0.953441	0.660398			
lmn	-2	0.329758	0.329758	0.994043	0.981277			
pkme	0	0.698136	0.698136	0.976480	0.960620			

2011-05-10

6	0.7738	0.7095	-2.01936	142.04443	-153.95424	-23.68905	35.51451	-205.38733
7	0.8454	0.7716	-46.30165	229.25450	-197.49584	-1.67375	48.60419	-211.79571
8	0.8354	0.7486	5.95394	285.49918	-276.83446	3.11703	28.68271	-176.07768
9	0.8482	0.7571	-79.66196	268.29661	-159.43428	38.46747	26.34146	-151.27131
10	0.8497	0.7567	-193.09726	279.99329	-55.48910	58.00069	26.45659	-139.29159
11	0.8192	0.7529	-649.62530	718.52809	-6.98777	136.59701	63.23914	-312.53010
12	0.8093	0.7517	-881.15023	866.70997	68.32715	130.91889	63.73692	-296.03600
13	0.8040	0.7533	-1038.56892	985.63826	98.85450	102.73991	64.71307	-287.95636
14	0.8051	0.7587	-1187.57790	1098.43506	131.61283	78.69669	64.30562	-275.14683
15	0.8078	0.7635	-1204.04075	1090.90182	153.83697	58.04970	60.91188	-261.38515
16	0.7831	0.7420	-479.87530	418.54409	77.92194	10.42307	30.64410	-131.25341
17	0.7816	0.6915	-369.76614	301.10881	85.78197	-4.09746	31.59408	-143.94993
18	0.7668	0.6815	-173.74174	114.06126	73.08472	-8.57824	23.33124	-112.10475
19	0.7504	0.6704	-81.13738	20.14993	74.29054	-16.73074	23.72288	-118.40692
20	0.7363	0.6663	-5.85021	-56.92848	76.54369	-18.20914	22.13851	-113.41629
21	0.7269	0.6626	42.04756	-106.14616	79.15290	-22.39428	23.39977	-121.04440
22	0.7190	0.6633	81.82255	-148.19665	82.11049	-20.53233	22.29551	-116.65532
23	0.7148	0.6660	96.57891	-157.55123	75.82940	-20.54966	21.11699	-110.26315
24	0.7167	0.6698	120.67281	-184.56635	78.81845	-19.65150	19.71068	-106.16580
25	0.7138	0.6697	129.48994	-193.35227	78.47464	-23.17524	20.57936	-107.36928
26	0.7129	0.6701	137.27366	-201.68989	78.45679	-23.92873	21.04541	-108.80503
27	0.7189	0.6783	142.14149	-206.64275	76.95009	-22.63655	19.03752	-97.65590
28	0.7172	0.6775	147.69388	-213.56731	77.49685	-23.15704	19.54602	-99.03297
29	0.7203	0.6797	161.05147	-231.88454	81.53853	-23.72196	18.93601	-94.66484
30	0.7199	0.6787	166.59849	-239.56612	82.46658	-22.83949	19.39288	-95.99638
drln	2	0.789694	1.000000	0.789694	1.000000			
frb	3	0.795898	0.977185	0.795898	1.000000			
inuq	-1	0.580605	0.760840	0.400371	0.993125			
natg	3	0.651592	0.651592	0.993566	1.000000			
schq	1	0.495007	0.495007	1.000000	1.000000			

2011-06-03

6	0.6654	0.5778	-10.18635	-98.98406	160.59645	-87.47067	43.16934	-35.87128
7	0.6517	0.5681	-93.08767	-219.89777	382.93995	-122.80210	53.82398	-31.16200
8	0.6449	0.5059	-172.57194	-297.23800	504.25825	-124.47125	50.41524	-16.70115
9	0.6394	0.4493	-175.17892	-295.53997	459.49495	-127.62668	46.64637	-14.03997
10	0.6206	0.4411	-113.02603	-214.96172	298.23187	-111.16208	36.62701	-12.31033
11	0.6186	0.4590	-85.78616	-195.25069	242.79168	-119.16308	34.64167	-11.75242
12	0.6226	0.4879	-61.49247	-174.27660	195.88541	-120.89532	32.44254	-10.63450
13	0.6215	0.5142	-40.54847	-147.07253	151.16961	-111.68188	28.92264	-8.85454
14	0.6295	0.5376	-28.87446	-137.35694	130.58412	-110.95037	28.37639	-7.64916
15	0.6347	0.5575	-20.01365	-125.14904	111.97817	-104.72172	27.52642	-6.71217
16	0.6419	0.5709	-22.48406	-124.21093	118.05671	-97.93050	29.13394	-5.23473
17	0.6551	0.5887	-16.41825	-117.11641	105.75497	-92.84161	28.83075	-4.33145
18	0.6672	0.6021	-11.28249	-110.85606	95.13087	-88.11008	28.79410	-3.21816
19	0.6972	0.6140	-12.29890	-158.99391	131.84911	-124.50890	43.28000	-3.10721
20	0.7009	0.6242	-8.80947	-152.45660	122.84327	-117.04491	43.55896	-1.62337
21	0.7048	0.6295	-6.44204	-146.81641	115.78070	-110.28562	44.18965	-0.05386
22	0.7059	0.6356	-4.74282	-142.53998	110.79683	-104.06714	45.12748	0.65194
23	0.7093	0.6393	-3.31959	-138.07582	105.91239	-98.97369	45.96093	2.19220
24	0.7132	0.6430	-3.52725	-134.28808	102.93843	-92.62199	44.83145	4.44282
25	0.7191	0.6477	-1.26644	-130.65065	98.19762	-90.80326	46.30335	5.57780
26	0.7240	0.6525	1.05823	-128.64813	95.11391	-89.40384	47.62675	6.34900
27	0.7268	0.6574	2.41875	-122.60324	89.91298	-86.36557	46.82653	7.64458
28	0.7304	0.6598	4.17977	-125.16151	90.55762	-90.32718	48.77066	9.44917
29	0.7298	0.6617	6.68462	-125.75532	89.48422	-93.07480	49.09337	10.46813
30	0.7307	0.6637	10.19711	-125.83786	88.03525	-98.61093	49.16943	12.04239
clm	1	0.365075	0.021510	0.955364	0.150699			
eunu	4	0.367179	0.367179	0.889704	0.924051			
ilon	2	0.425448	0.304546	0.546350	1.000000			
lain	2	0.455328	0.347991	0.495244	0.522749			
res	-2	0.592255	0.399893	0.784616	1.000000			

2011-07-25

6	0.4040	0.4040	-827.38746	1876.81038	-1049.41649	-1612.59985	360.92570	529.45203
7	0.4095	0.4089	-787.33755	1852.28622	-1064.94628	-1662.65619	321.88742	503.75542
8	0.4191	0.4142	-722.13830	1768.32388	-1046.18174	-1704.09977	310.57180	472.38358
9	0.4270	0.4193	-668.60503	1714.77479	-1046.16983	-1741.96156	290.69676	467.08606
10	0.4396	0.4225	-455.94382	1227.96508	-772.02307	-1338.64367	218.52750	342.97677
11	0.4436	0.4167	-417.22642	1167.02824	-749.80073	-1334.52149	218.15820	337.23737
12	0.4412	0.4059	-419.64743	1160.15886	-740.51126	-1274.44734	211.10614	345.52851
13	0.4435	0.3967	-447.81365	1119.90493	-672.08963	-1086.71028	207.15008	356.23660
14	0.4412	0.3915	-542.49527	1204.28004	-661.78376	-870.17024	202.62417	370.16300
15	0.4451	0.3923	-633.58064	1244.19728	-610.61842	-570.23726	196.61269	362.89332
16	0.4353	0.3908	-826.06815	1536.02419	-709.95596	-413.67056	220.64398	428.34478
17	0.4258	0.3919	-929.36565	1611.15744	-681.79146	-149.98556	224.17203	435.82654
18	0.4155	0.3914	-970.88702	1649.03747	-678.15082	17.10519	220.39367	429.44262
19	0.4109	0.3928	-1016.61740	1695.93370	-679.31633	88.64738	234.81401	450.75321
20	0.4061	0.3952	-994.10314	1660.10207	-665.99911	79.86105	234.63801	457.53758
21	0.4044	0.3994	-967.46434	1621.93175	-654.46829	48.16548	234.88024	464.13214
22	0.4030	0.4012	-756.24149	1257.34868	-501.10755	28.61273	190.34517	368.95942
23	0.3996	0.3996	-741.06561	1235.91430	-494.84831	-6.29852	190.97421	374.29505
24	0.3985	0.3985	-740.54928	1221.16352	-480.61266	-18.87583	195.27982	376.22594
25	0.3974	0.3974	-734.49105	1211.01134	-476.52053	-53.31417	196.08388	381.43702
26	0.3978	0.3978	-744.13162	1208.38384	-464.25225	-64.58916	200.07188	383.42486
27	0.3980	0.3980	-736.59785	1199.92477	-463.32678	-47.16726	199.60070	379.44305
28	0.3987	0.3987	-742.02702	1202.45104	-460.42452	-76.06299	200.27482	384.17118
29	0.3999	0.3999	-765.78391	1214.74783	-448.96279	-81.19079	203.59136	385.64490
30	0.4012	0.4012	-779.77710	1225.46310	-445.68518	-106.45964	203.85229	389.19742
clm	-1	0.359011	0.359011	0.954919	0.906760			
sfjd	1	0.422546	0.422546	1.000000	0.999721			

2011-09-18

1	0.8265	0.7964	2.20451	-6.52472	5.96954	-0.84816	-173.40539	40.72010
2	0.8232	0.7998	-19.97206	-8.69428	32.40428	14.79876	-89.25768	24.88784
3	0.8160	0.7914	-50.19476	-11.93432	67.34635	32.92194	-54.78763	19.29802
4	0.7943	0.7681	-81.21924	-18.62979	105.43300	47.52490	-36.33515	17.40333
5	0.7668	0.7042	-135.37439	-42.73620	184.79920	69.11334	-38.76637	25.32924
6	0.7585	0.6863	-130.02112	-43.22127	179.21216	73.24399	-39.35594	27.33640
7	0.7322	0.6432	-112.52321	-65.16308	181.91174	57.42562	-33.59896	27.83476
8	0.7082	0.6069	-68.56219	-88.55819	159.35147	33.63669	-31.24910	28.47057
9	0.7001	0.5834	-16.35832	-112.05831	129.30950	12.43354	-30.20890	28.20629
10	0.6961	0.5754	33.90193	-135.55795	101.20021	1.66835	-31.04259	28.73922
11	0.7036	0.5799	80.09174	-158.70419	77.23640	-2.61250	-32.74375	29.25425
12	0.7134	0.5984	116.29257	-177.37580	58.58525	0.81035	-34.50140	29.53560
13	0.6546	0.5880	123.98934	-164.12512	37.25191	3.38576	-31.01051	25.57247
14	0.6175	0.5831	145.01444	-177.97561	29.04500	7.24728	-33.26054	26.55375
15	0.5994	0.5761	160.59321	-188.05860	22.43392	10.96280	-35.61817	27.73514
16	0.5914	0.5643	159.62211	-187.56227	23.58014	14.15740	-43.20374	32.02242
17	0.6031	0.5590	162.07204	-185.35167	18.93116	10.89625	-45.23535	32.46600
18	0.6224	0.5581	160.67607	-180.74262	15.85282	7.84098	-46.20674	32.80217
19	0.6407	0.5651	151.78296	-168.99568	13.31389	4.95097	-45.63518	32.15376
20	0.6600	0.5766	147.49034	-163.38215	11.96738	2.43194	-46.50385	32.60143
21	0.6747	0.5908	138.16849	-153.01194	10.98152	0.50094	-46.06280	32.30480
22	0.6906	0.6074	128.33684	-143.06217	10.90483	3.16727	-46.60412	32.45559
23	0.7041	0.6259	116.31650	-132.50307	12.44741	6.40586	-46.84299	32.67364
24	0.7189	0.6450	105.03145	-122.83693	14.19157	10.37888	-46.80263	32.67086
25	0.7284	0.6596	98.41892	-116.80834	14.89329	10.77596	-47.08391	33.11259
kgno	-2	0.521172	0.521172	0.976098	0.916994			
pemo	2	0.586369	0.586369	0.949940	0.992801			
plwo	-1	0.566752	0.564415	0.569090	1.000000			

2011-09-21

1	0.4121	0.2808	-68.49185	9.71953	54.94643	13.49367	-12.60696	-66.94587
2	0.3917	0.3079	-72.81365	8.98851	62.58823	13.38985	-108.92689	-18.66813
3	0.3865	0.3200	-84.79079	7.20598	72.90209	14.51554	-79.47975	-8.95757
4	0.4083	0.3551	-98.70939	4.54876	82.40571	16.11864	-66.11831	-2.88966
5	0.4227	0.3746	-116.85028	5.52666	85.07105	18.57022	-61.15192	-0.13893
6	0.4319	0.3777	-125.86183	11.97184	84.48002	20.54490	-65.52203	2.00569
7	0.4393	0.3451	-142.02576	37.24847	52.00525	25.82290	-68.30142	3.54192
8	0.4357	0.3212	-121.91765	83.46721	-27.49190	28.58265	-66.26450	3.98884
9	0.4325	0.3524	-91.28500	125.17922	-95.44836	29.52494	-65.57920	3.39877
10	0.4031	0.3418	-58.67150	121.93630	-105.11255	23.97145	-55.23611	4.03162
11	0.3862	0.3256	-45.25623	116.14546	-100.97912	20.66749	-50.20976	4.26705
12	0.3726	0.3170	-38.41571	109.29726	-93.68002	18.01843	-47.42928	4.57460
13	0.3679	0.3091	-33.82838	100.13370	-83.90141	15.34894	-44.96167	4.93430
14	0.3648	0.3052	-31.13806	95.04081	-78.60542	13.33447	-44.54895	5.46195
15	0.3638	0.3047	-28.74357	89.91070	-73.82758	11.36103	-44.27502	5.95114
16	0.3662	0.3100	-24.22764	90.07296	-78.00257	9.87701	-50.38808	7.28892
17	0.3680	0.3134	-21.22385	84.01460	-73.11742	7.64178	-50.37542	8.08292
18	0.3661	0.3142	-17.75039	75.13611	-65.98667	5.46200	-48.57741	8.54769
19	0.3670	0.3155	-15.76169	70.43321	-62.22452	3.68897	-48.62897	8.72896
20	0.3653	0.3161	-13.89385	65.91640	-58.74285	2.22084	-49.11578	9.50992
21	0.3644	0.3170	-12.34058	62.32215	-55.97811	0.96729	-49.52347	9.82307
22	0.3631	0.3186	-10.97326	58.65033	-53.06933	-0.23619	-50.22436	10.32593
23	0.3624	0.3209	-9.93904	55.59998	-50.53684	-1.28418	-50.93329	10.78747
24	0.3624	0.3234	-8.15163	52.44704	-48.73271	-2.51557	-51.32534	11.21155
25	0.3626	0.3268	-7.75691	50.53860	-46.81802	-3.31196	-52.01524	11.60322
buln	-3	0.235051	0.235051	0.996320	0.981406			
clm	-1	0.158517	0.158517	0.967647	0.951812			
ilon	-1	0.317991	0.355436	0.147127	0.451411			
kugn	0	0.184269	0.184269	0.679993	0.779724			
mryn	0	0.248868	0.169329	0.268048	0.309226			
res	7	0.497146	0.497146	0.892870	0.845567			
smln	0	0.323939	0.259653	0.388225	1.000000			

2011-10-02

14	0.7248	0.5995	236.26605	-151.27293	-50.80626	341.90658	50.38908	52.32397
15	0.7202	0.6065	235.37233	-159.11068	-44.41228	352.01873	45.16148	51.64704
16	0.7195	0.5990	242.42686	-162.38446	-52.66682	359.96538	45.73199	58.59513
17	0.7182	0.5972	245.93162	-173.38235	-47.91902	361.01254	40.31088	57.88573
18	0.7090	0.6058	248.88783	-183.73900	-44.33513	363.42439	34.25283	57.84408
19	0.7028	0.6204	254.78135	-194.35820	-42.61445	362.62331	28.45045	57.95179
20	0.7016	0.6349	262.03517	-205.17080	-40.11717	365.03488	27.48863	58.09730
21	0.6958	0.6434	272.14819	-215.41603	-40.75977	361.44447	22.06417	58.50323
22	0.6829	0.6201	283.23634	-225.69512	-42.15927	357.38747	16.69476	58.92323
23	0.6709	0.5952	294.90764	-236.06645	-44.13830	353.35507	11.29929	59.37983
24	0.6728	0.5797	306.70251	-246.47929	-46.35857	350.06039	5.87756	59.83379
25	0.6890	0.5790	319.00130	-257.08025	-48.83506	347.13243	0.32832	60.28783
26	0.6690	0.5794	331.55424	-267.83650	-51.58478	345.30322	-5.36535	60.74933
27	0.6626	0.5871	344.38319	-278.90237	-54.43401	344.47465	-11.18599	61.14589
28	0.6641	0.5904	359.33299	-293.09910	-56.06850	349.29483	-11.86490	61.50141
29	0.6645	0.5999	373.48019	-305.38613	-58.99995	350.87351	-17.75750	61.84436
30	0.6672	0.6094	388.52234	-318.55016	-61.99252	353.55887	-23.81544	62.07916
31	0.6707	0.6185	404.58477	-332.72453	-64.97051	357.40697	-29.79335	62.17535
32	0.6765	0.6261	421.65010	-347.63136	-67.65870	363.38567	-35.87056	62.23414
33	0.6801	0.6322	440.83737	-363.79637	-70.55819	371.25820	-42.24506	62.37369
34	0.6850	0.6373	461.87633	-382.12226	-73.36593	380.49217	-48.32651	62.31822
35	0.6889	0.6419	485.22102	-402.82847	-76.28483	391.52217	-54.11106	61.96734
36	0.6905	0.6438	512.86786	-428.70735	-78.28649	401.96536	-56.46021	62.07994
37	0.6917	0.6453	546.64860	-458.96897	-81.48258	427.79958	-59.75479	61.13771
38	0.6961	0.6486	584.65412	-492.43069	-85.51271	443.57888	-65.71889	60.43788
dmcq	-1	0.391566	0.112369	0.981265	0.670763			
drln	0	0.661799	0.627049	0.696550	1.000000			
icq	3	0.742622	0.742622	0.984471	0.986259			
lmq	1	0.756472	0.694481	0.910816	0.818463			
natg	0	0.713307	0.713307	1.000000	1.000000			
schq	3	0.207956	0.207956	0.912506	0.971939			

2011-11-16

6	0.7553	0.7089	39.73467	-56.62137	27.87378	-4.41612	7.06859	-25.99158
7	0.7285	0.6801	31.45646	-79.16103	60.30949	-8.03817	6.61724	-22.98357
8	0.7095	0.6687	18.12902	-95.95343	86.66730	-12.16004	5.72667	-18.23173
9	0.7168	0.6873	23.89402	-111.62917	91.03246	-20.35207	5.71491	-16.52365
10	0.7307	0.7140	36.86478	-99.49966	62.27478	-25.23867	5.02287	-13.24528
11	0.7241	0.7157	56.49524	-106.67005	48.41412	-33.95042	5.33024	-12.90243
12	0.7019	0.6997	78.46566	-119.66474	38.69713	-44.12041	5.94617	-13.47703
13	0.6850	0.6850	82.12975	-109.84346	25.24444	-44.45612	5.38869	-11.53171
14	0.6732	0.6719	99.75449	-122.58167	19.95549	-52.53237	5.93398	-12.05669
15	0.6698	0.6658	110.98573	-128.85853	14.71643	-57.04613	6.17171	-11.95102
16	0.6725	0.6640	118.72974	-134.97185	13.14232	-59.98416	7.38888	-13.40819
17	0.6866	0.6714	120.44813	-131.02323	7.37643	-58.38418	7.19860	-12.93901
18	0.7041	0.6803	171.43624	-180.92212	4.81740	-79.33545	10.24691	-17.80336
19	0.7200	0.6966	168.72805	-174.02897	0.60768	-74.04144	10.33219	-17.63175
20	0.7480	0.7187	143.93617	-146.56042	-1.85573	-59.72488	9.07045	-14.90109
21	0.7668	0.7341	129.85203	-130.94698	-3.54113	-50.72770	8.33455	-13.36688
22	0.7781	0.7448	120.89182	-121.33361	-4.36162	-44.22763	8.09341	-12.38365
23	0.7862	0.7520	117.17090	-117.25514	-4.94119	-39.95304	8.19896	-11.90340
24	0.7958	0.7603	109.62648	-109.46004	-5.08055	-34.70806	8.02174	-10.99600
25	0.7937	0.7667	77.19356	-76.97216	-3.79378	-22.65932	5.82853	-7.64497
26	0.7982	0.7712	75.88271	-75.52572	-3.84436	-20.57723	5.97851	-7.32053
27	0.7997	0.7752	71.60024	-70.97034	-3.74204	-17.83240	5.86495	-6.92044
28	0.8215	0.7758	104.82221	-103.67684	-5.45032	-24.08533	8.87317	-9.71738
29	0.8068	0.7777	71.42740	-70.26614	-3.89045	-15.26477	6.12161	-6.33540
30	0.8090	0.7770	72.04974	-70.62147	-3.85834	-14.34967	6.31841	-6.02352
cmbn	-2	0.520281	0.293978	0.927266	0.746583			
kajq	1	0.706007	0.510046	0.895155	0.712819			
schq	-1	0.765624	0.765624	0.958354	0.971733			

2012-02-24

1	0.6440	0.5121	9.10411	-8.54620	0.04369	17.38358	-118.59383	-95.10655
2	0.6503	0.5165	10.90451	-9.74329	0.42548	20.31697	-55.55855	-45.38538
3	0.6536	0.5129	13.48802	-12.64503	2.09237	25.08495	-40.87163	-33.42181
4	0.6473	0.5051	15.10475	-16.24766	5.63919	28.40288	-31.40315	-25.51170
5	0.6339	0.4888	16.89449	-24.44297	14.65090	36.69429	-29.74774	-23.69262
6	0.6399	0.4879	22.58733	-28.73091	12.80155	43.47118	-29.05905	-22.60970
7	0.6379	0.4779	19.10597	-36.20158	24.53389	50.24441	-25.41838	-19.65857
8	0.6479	0.4921	15.69669	-45.38012	35.11699	58.43404	-23.57161	-17.35905
9	0.6917	0.5360	22.22765	-52.23065	32.11424	65.89976	-21.09077	-15.14106
10	0.7232	0.5796	34.41554	-56.48282	22.13484	70.02722	-18.54030	-12.86899
11	0.7498	0.6076	47.85095	-63.65320	14.87998	74.28809	-17.37490	-11.76038
12	0.7766	0.6409	51.24531	-61.54658	8.78800	62.90135	-14.31397	-9.59633
13	0.7925	0.6359	59.73177	-69.38163	7.12888	54.54093	-14.16739	-9.60441
14	0.8091	0.6301	57.79919	-68.31168	6.95472	30.83906	-12.62214	-8.85979
15	0.8262	0.6505	51.58617	-64.81488	8.59396	2.27690	-11.18266	-8.22661
16	0.8275	0.6608	38.71875	-58.08961	14.16255	-27.20727	-11.32757	-8.76969
17	0.8076	0.6842	25.21221	-48.78583	17.69299	-56.53747	-10.02724	-8.30573
18	0.8114	0.7135	14.10807	-39.64362	19.42855	-72.30805	-9.10402	-7.84503
19	0.8148	0.7332	5.00952	-29.85967	19.19003	-74.63447	-7.88961	-6.90075
20	0.8181	0.7415	-1.23380	-23.28181	18.84502	-74.35857	-7.20129	-6.15109
21	0.8180	0.7336	-5.14851	-18.61676	18.12009	-71.18741	-6.79043	-5.52771
22	0.8218	0.7182	-8.51470	-15.77215	18.32197	-72.49644	-6.96359	-5.06358
23	0.8237	0.7048	-10.87866	-13.23128	18.14960	-70.37356	-7.41190	-5.06794
24	0.8300	0.6971	-12.76569	-11.70007	18.49268	-70.28897	-7.42978	-4.77590
25	0.8331	0.6912	-13.55415	-11.10754	18.79860	-70.62259	-7.10062	-4.83061
alfo	0	0.725441	0.725441	0.974613	1.000000			
batg	-1	0.386787	1.000000	0.386787	0.969101			
chgq	-1	0.438985	0.438985	0.903822	0.811402			
dmcq	-3	0.197194	0.197194	0.900456	0.965575			
ggn	-4	0.525199	0.330036	0.720363	0.844187			
mntq	-1	0.522063	0.522063	0.925776	0.976369			
pkme	4	0.549871	0.549871	0.908467	0.781748			

2012-04-12 02:29

6	0.6371	0.6266	-0.15210+308	-0.10461+308	0.20827+308	0.95621+307	-0.25969+308	
0.32670+307								
7	0.6467	0.6312	185.58610	117.32823	-198.27966	-120.36679	276.30252	-33.28408
8	0.6594	0.6348	143.11258	57.38665	-44.90249	-133.99034	265.84514	-27.05920
9	0.6432	0.6164	57.62008	-33.93694	144.20426	-143.75410	247.68930	-19.13508
10	0.6100	0.5866	-13.47268	-107.78297	286.56395	-167.62366	254.45008	-14.95460
11	0.5930	0.5747	-51.83278	-124.05690	297.73099	-154.46400	209.92578	-9.66782
12	0.5877	0.5718	-73.86973	-133.71488	308.37060	-159.54233	196.91512	-7.16638
13	0.5859	0.5710	-84.71666	-130.04138	296.37936	-157.39050	177.64405	-5.62527
14	0.5861	0.5730	-79.48865	-106.04799	243.97329	-134.41855	137.19824	-3.95183
15	0.5888	0.5755	-85.41716	-101.82552	238.06308	-137.69277	130.56153	-2.96985
16	0.5897	0.5754	-102.48856	-104.47619	255.33721	-141.61308	141.18653	-2.75717
17	0.5923	0.5782	-101.77376	-94.70493	235.79974	-136.93621	128.48841	-0.88659
18	0.5989	0.5828	-104.76178	-87.27917	226.01204	-138.82571	126.75675	1.00989
19	0.6038	0.5871	-111.07052	-81.06512	222.18965	-141.50538	122.42562	1.81601
20	0.6083	0.5918	-117.06831	-74.01345	219.73308	-144.16677	119.30807	1.95103
21	0.6127	0.5954	-117.06522	-63.27577	206.54021	-138.64207	109.64267	2.12783
22	0.6170	0.5993	-124.05951	-56.92295	206.32806	-141.51946	106.60117	1.72684
23	0.6218	0.6027	-131.60547	-51.18551	206.91076	-144.58660	103.82422	0.33523
24	0.6273	0.6065	-140.30661	-44.94952	207.75425	-147.53116	100.90987	0.46677
25	0.6346	0.6090	-235.07964	-64.78304	332.77268	-239.25410	155.83402	1.92876
26	0.6358	0.6094	-246.87658	-54.33882	331.27918	-244.31205	157.20925	3.71969
27	0.6373	0.6061	-264.48704	-43.99667	335.17533	-250.39527	152.38305	3.38569
28	0.6389	0.6074	-272.54475	-31.87687	327.10980	-247.50306	142.18577	2.56993
29	0.6404	0.6079	-291.85388	-20.62356	332.03854	-254.34855	136.86179	1.89043
30	0.6412	0.6085	-312.18768	-9.33268	337.89322	-262.59383	130.87038	0.11987
gbn	-1	0.577643	1.000000	0.393558	0.761727			
ggn	-1	0.544987	1.000000	0.544987	0.830251			
hal	1	0.629419	0.588230	0.670608	0.801423			
hrv	0	0.551025	0.579849	0.686949	0.386276			
lmn	0	0.647088	0.662748	0.737815	0.540701			
mca2	-1	0.681225	0.334544	0.848256	0.860876			
wes	0	0.365458	1.000000	0.479580	0.251335			

2012-04-12 04:29

6	0.6570	0.5930	-19.67981	-0.96368	37.36034	-33.19557	65.24109	5.44113
7	0.6442	0.5687	-30.46595	-10.46416	59.24986	-35.73017	56.54021	7.01815
8	0.6283	0.5319	-43.03943	-21.34195	78.23923	-37.05314	50.31641	8.56876
9	0.6161	0.5025	-50.89489	-24.37145	80.87583	-38.02123	45.93337	9.46685
10	0.6142	0.4902	-53.04825	-20.55860	72.35417	-38.92340	42.75476	9.96813
11	0.6185	0.4919	-52.41068	-14.66697	61.78902	-39.93407	40.29804	10.37189
12	0.6247	0.5024	-51.16170	-9.16516	52.95655	-41.06475	38.33269	10.83682
13	0.6296	0.5056	-50.65000	-4.99103	47.18188	-42.33268	36.61332	11.28103
14	0.6318	0.5120	-47.15571	-1.43853	40.09496	-41.01879	32.99766	11.03540
15	0.6363	0.5200	-46.65846	1.27125	36.61218	-42.29045	31.72627	11.48655
16	0.6333	0.5141	-49.56924	0.18783	41.55191	-44.05415	34.71934	14.37752
17	0.6386	0.5212	-49.64390	2.60004	39.02803	-45.46139	33.70642	14.32441
18	0.6424	0.5271	-49.66206	4.23238	37.31823	-47.07278	32.93225	14.73937
19	0.6460	0.5341	-48.11889	5.56624	34.76989	-47.47167	31.69999	14.80188
20	0.6492	0.5409	-48.66342	6.65824	33.79657	-49.66640	31.85946	15.41595
21	0.6527	0.5465	-47.38641	5.41743	33.01128	-51.27162	32.20039	16.40252
22	0.6583	0.5538	-46.47068	6.35725	31.08711	-51.94126	31.25255	16.00400
23	0.6617	0.5596	-47.92730	7.37554	31.04698	-54.59392	31.84210	16.87701
24	0.6644	0.5643	-48.74011	8.86925	30.55549	-55.69936	31.33387	17.09969
25	0.6688	0.5702	-49.04343	10.08810	29.98439	-56.62061	30.49502	16.87081
26	0.6728	0.5760	-49.28249	11.29134	29.54979	-57.52831	29.67406	16.96322
27	0.6770	0.5800	-49.51216	12.66652	29.12910	-58.34726	28.76357	16.98954
28	0.6816	0.5858	-49.82592	14.13870	28.69985	-59.06049	27.75880	16.92812
29	0.6863	0.5921	-48.29830	13.96295	28.06718	-58.93592	26.87731	17.21107
30	0.6915	0.5977	-50.34932	16.30296	28.52808	-62.20303	26.75630	17.31079
ggn	-3	0.510566	0.508147	0.687902	0.335648			
hal	3	0.625484	0.534385	0.716582	0.965531			
hrv	2	0.268976	0.297628	0.286941	0.222358			
lmn	-2	0.611436	0.356503	0.866368	0.859082			
mca2	2	0.546686	0.096887	0.849020	0.694153			
pkme	2	0.577375	0.532991	0.621758	1.000000			
wes	2	0.290699	0.344699	0.341267	0.186130			

2012-04-23

6	0.7670	0.5785	24.99692	0.68888	-30.42804	9.22999	-8.74383	-22.32853
7	0.7622	0.5580	34.61658	4.14240	-42.37982	7.99855	-8.37440	-18.86505
8	0.7666	0.5566	45.44069	4.06588	-49.02035	5.81745	-9.49729	-15.96318
9	0.7893	0.5835	47.00625	-1.81033	-40.37346	4.23909	-9.89375	-13.51462
10	0.8192	0.6199	43.11090	-9.17985	-27.21066	4.39291	-10.07690	-11.34952
11	0.8358	0.6479	39.26023	-14.69423	-17.66064	4.38654	-10.22358	-9.86556
12	0.8349	0.6642	37.00895	-18.49548	-11.97443	4.01301	-10.30340	-8.79398
13	0.8308	0.6802	36.17539	-21.41666	-8.67996	3.13474	-10.31657	-8.08036
14	0.8293	0.6938	36.12816	-23.55525	-6.86360	2.11858	-10.26793	-7.65538
15	0.8281	0.6995	36.82148	-25.53963	-5.84676	0.77028	-10.12830	-7.52730
16	0.8252	0.6986	39.07075	-28.27462	-6.05860	-1.25707	-11.80357	-8.78789
17	0.8199	0.6993	40.62979	-31.60749	-4.68999	-3.42689	-11.85498	-8.92813
18	0.8138	0.6948	42.46183	-34.64078	-3.82587	-5.70793	-11.90500	-9.05759
19	0.8086	0.6878	44.20843	-37.16769	-3.32685	-7.82490	-11.95523	-9.15887
20	0.8026	0.6828	46.48555	-40.02316	-2.99004	-9.61325	-11.97836	-9.18207
21	0.8047	0.6832	47.68542	-41.52404	-2.89240	-11.08943	-12.14018	-8.97041
22	0.8043	0.6918	47.94809	-42.40321	-2.42857	-12.29173	-12.31889	-8.94690
23	0.8061	0.6920	48.14371	-42.60688	-2.54882	-12.77554	-12.22395	-8.99069
24	0.8122	0.6975	48.72189	-42.96208	-2.89441	-13.56915	-12.38792	-8.95448
25	0.8209	0.7047	49.16151	-43.01659	-3.38894	-14.13680	-12.49586	-8.75648
26	0.8311	0.7134	49.53250	-42.88393	-3.99956	-14.58422	-12.59616	-8.49061
27	0.8418	0.7211	49.64744	-42.31924	-4.77551	-14.77649	-12.72249	-8.12402
28	0.8482	0.7258	50.14288	-42.10277	-5.54273	-14.20336	-12.92845	-7.54518
29	0.8510	0.7106	49.78943	-40.57290	-6.75514	-13.73120	-13.20430	-7.21356
30	0.8495	0.6960	49.20139	-38.73373	-8.11939	-13.11008	-13.50268	-6.68127
clm	6	0.266904	0.266904	0.924839	1.000000			
frb	-3	0.807107	0.807107	0.989598	0.935029			
ilon	-4	0.514152	0.514152	0.705279	1.000000			
mryn	6	0.744615	0.464251	0.769595	1.000000			
tule	-1	0.450093	0.282801	0.617385	1.000000			

2012-05-02

1	0.8564	0.7329	45.42760	-34.43882	7.18442	27.37561	823.93402	228.23879
2	0.8477	0.7335	39.82856	-31.76490	-11.51242	32.37591	463.18980	376.45791
3	0.8433	0.7255	36.83519	-27.21442	-15.05514	37.27076	325.65438	248.93026
4	0.8411	0.7191	34.52255	-21.45348	-21.31850	42.75938	255.67901	183.69145
5	0.8387	0.7111	35.18652	-14.34039	-33.96311	48.43403	213.80345	146.34650
6	0.8379	0.7078	28.23991	-10.88863	-31.35355	53.88366	211.48592	134.59196
7	0.8393	0.7048	33.91973	2.62499	-53.66630	59.68456	184.73990	109.00334
8	0.8362	0.6967	42.25396	18.79146	-78.35684	64.35692	164.84188	89.65874
9	0.8291	0.6858	48.95748	33.67187	-96.79498	68.48499	149.18971	75.82442
10	0.8230	0.6794	52.50541	45.50964	-107.61014	72.17345	135.54032	66.39849
11	0.8198	0.6771	51.46086	53.60061	-110.32824	75.88480	124.50533	57.59279
12	0.8178	0.6768	48.67776	58.89984	-109.65123	79.26324	115.89759	51.39520
13	0.8160	0.6758	45.15058	63.13576	-108.04737	82.68064	109.04636	46.13185
14	0.8131	0.6736	43.12389	68.67751	-109.73023	85.99278	103.24254	41.52523
15	0.8126	0.6759	37.77173	70.67006	-105.26538	89.61204	98.84621	37.27180
16	0.8067	0.6727	41.42503	82.13121	-121.25949	92.76345	105.34368	37.56826
17	0.8059	0.6748	35.36013	84.43478	-116.49862	96.06457	101.29449	33.48331
18	0.7950	0.6743	27.22963	77.62837	-101.18084	87.06937	85.68208	26.20840
19	0.7922	0.6713	23.91434	80.98260	-100.64997	89.38114	82.97826	24.21349
20	0.7894	0.6698	20.40263	84.62352	-99.91942	92.00059	80.32441	21.46226
21	0.7868	0.6685	16.96954	88.43007	-99.34766	94.58376	77.76355	18.87039
22	0.7846	0.6673	14.24191	90.06269	-97.38183	96.31295	76.74846	18.62096
23	0.7822	0.6667	11.44911	93.79856	-97.41804	99.16996	74.19880	16.06963
24	0.7828	0.6655	8.83712	111.36645	-110.59160	115.85755	81.72632	15.45176
25	0.7795	0.6635	4.51327	116.16203	-110.49097	118.95445	79.06465	12.57284
malo	-8	0.621352	1.000000	0.712490	0.530214			
matq	0	0.724935	0.757565	0.692305	1.000000			
pklo	-4	0.668030	0.668030	0.997443	0.983913			
pnp0	2	0.829016	0.761764	1.000000	0.896268			
suno	1	0.631930	0.943063	1.000000	0.631930			
vimo	1	0.546815	0.453038	0.720188	0.467218			
vdq	6	0.622147	1.000000	0.622147	0.985575			

2012-07-08

6	0.6124	0.3912	-34.14184	62.58842	-9.23464	11.86186	-88.24603	35.38037
7	0.5986	0.3769	-41.81319	41.53645	24.48153	9.07530	-74.59257	32.09237
8	0.5716	0.3565	-56.87805	16.44748	62.09461	7.61816	-66.92881	31.10983
9	0.5445	0.3415	-67.20048	1.93395	76.67717	8.07274	-59.63736	28.96100
10	0.5403	0.3335	-0.66228E+02	-0.17565E-02	0.68693E+02	0.75524E+01		-0.53958E+02
0.26894E+02								
11	0.5488	0.3301	-60.07401	1.53616	56.36017	6.29794	-50.55729	26.01986
12	0.5627	0.3367	-54.06830	4.10346	45.10957	4.10739	-46.63829	24.35788
13	0.5761	0.3425	-48.22103	6.17320	36.06731	1.12948	-44.47385	23.46975
14	0.5906	0.3547	-43.28440	8.16645	28.20834	-1.50820	-41.43293	22.12942
15	0.6043	0.3622	-38.91707	10.08894	21.70063	-5.92686	-39.63004	21.21176
16	0.6156	0.3647	-37.09612	7.84203	22.60048	-5.54682	-42.92234	23.38163
17	0.6252	0.3640	-32.73837	7.25404	18.99445	-7.33375	-41.78002	23.15579
18	0.6339	0.3678	-29.25941	6.25709	16.65230	-7.40625	-39.78444	22.40998
19	0.6426	0.3734	-25.95632	6.17396	13.69583	-9.35504	-39.03427	22.08887
20	0.6487	0.3786	-23.51337	5.76616	11.55260	-12.03750	-38.12431	21.78852
21	0.6558	0.3889	-21.77778	5.57076	9.71755	-14.24675	-36.14999	21.30149
22	0.6616	0.3953	-19.84463	4.96515	8.17571	-16.13598	-35.35797	21.82473
23	0.6686	0.4089	-18.80715	5.24420	6.72926	-18.56396	-33.40832	21.43605
24	0.6712	0.4169	-18.23475	5.91713	5.67407	-22.08598	-32.48866	21.34507
25	0.6783	0.4309	-17.83520	6.80600	4.47317	-24.54594	-30.52219	21.01692
26	0.6843	0.4400	-16.60028	6.06860	4.31090	-25.30826	-29.53023	21.40943
27	0.6909	0.4545	-16.54404	7.66608	3.00161	-27.41313	-27.98519	20.79518
28	0.6952	0.4664	-16.15947	9.08823	1.70491	-30.42988	-26.85305	20.77823
29	0.6985	0.4753	-14.52558	9.41206	0.39545	-33.76655	-26.27161	20.32929
30	0.7071	0.4895	-13.42504	9.83178	-0.58930	-35.25345	-24.90983	20.19686
frb	-5	0.379651	0.379651	0.967440	0.988297			
lmn	-1	0.359543	0.259061	0.460025	0.933510			
mkvl	-1	0.279151	0.080422	0.477881	0.715540			
natg	-2	0.345122	0.115156	0.436438	0.483773			
schq	0	0.342415	0.149690	0.535139	0.862612			
sjnn	-4	0.181493	0.181493	0.726390	0.862748			
wbhl	-1	0.423268	0.423268	0.893164	0.866590			

2012-09-02

6	0.5706	0.5706	88.45738	-335.91669	237.32640	44.56434	18.57163	-42.89511
7	0.5589	0.5555	89.04577	-258.68042	159.48953	99.48057	16.50088	-52.63507
8	0.5430	0.5362	97.99725	-206.87828	100.31246	135.91550	14.84386	-60.67239
9	0.5299	0.5199	106.01663	-181.16880	68.76082	157.69205	13.50592	-67.62275
10	0.5210	0.5090	125.93601	-194.84395	63.82515	202.27002	14.40017	-85.71358
11	0.5141	0.4995	123.31364	-183.44889	56.76610	222.75063	13.97617	-92.21099
12	0.5118	0.4951	121.39253	-175.49721	51.89757	239.83057	13.15054	-99.51122
13	0.5146	0.4943	128.42545	-180.51993	50.43931	261.96852	13.10544	-111.57985
14	0.5226	0.5000	134.45610	-184.67596	48.88111	255.54584	12.60998	-119.33610
15	0.5290	0.5020	140.04374	-187.77099	46.33805	243.90808	10.90386	-132.13468
16	0.5360	0.5063	159.23450	-219.94968	59.26649	219.34031	12.21507	-157.48016
17	0.5384	0.5076	181.15639	-251.99160	69.03570	195.99536	13.04658	-152.39079
18	0.5425	0.5104	193.18967	-271.53883	76.34284	160.95110	12.32577	-152.66330
19	0.5467	0.5126	213.79062	-304.66049	88.64340	133.60349	11.82603	-160.43193
20	0.5522	0.5155	230.71720	-332.48616	99.34230	112.44873	11.92156	-167.70631
21	0.5575	0.5175	245.64020	-357.29866	109.07392	95.11187	12.05127	-175.06405
22	0.5629	0.5194	258.77494	-379.10422	117.62621	81.43834	12.23912	-182.46817
23	0.5659	0.5216	270.27107	-397.88911	124.83053	71.37057	12.47700	-189.91166
24	0.5708	0.5239	267.10899	-394.26175	124.44388	61.50019	12.12935	-187.94707
25	0.5725	0.5270	273.83479	-405.02729	128.49951	58.33034	13.36167	-183.73067
26	0.5725	0.5254	272.89437	-402.16821	126.60345	56.78442	12.78514	-182.90885
27	0.5757	0.5294	264.62650	-388.56930	121.44441	56.27954	12.81059	-179.06601
28	0.5789	0.5304	271.76832	-397.18754	122.93450	58.68560	12.64185	-185.38357
29	0.5822	0.5313	276.84820	-400.72512	121.40349	66.98641	12.55846	-191.33726
30	0.5852	0.5350	265.27241	-379.06430	111.58065	74.87085	11.81649	-185.97473
eunu	0	0.246732	0.078977	0.885743	0.414487			
res	-4	0.741896	0.741896	0.987467	1.000000			

2012-10-10

6	0.7464	0.6214	31.21451	6.20503	-8.25296	-14.82032	-46.17163	31.25603
7	0.9683	0.9683	-0.29074E-04	-0.22716E-04	0.33401E-04	0.26295E-04	-0.50576E-05	0.20288E-
04								
8	0.6093	0.5287	-3.91961	-27.75729	64.47994	-15.98085	-30.50689	23.84036
9	0.5405	0.4731	-12.84632	-37.78901	70.43457	-16.24768	-23.35345	19.34222
10	0.5084	0.4325	-12.47527	-41.68210	64.87851	-18.40436	-21.10205	18.02141
11	0.4975	0.4120	-8.22231	-40.87096	53.73832	-20.28413	-19.59277	16.89303
12	0.4998	0.4048	-3.77642	-38.47419	43.33388	-21.40715	-18.48127	15.85726
13	0.5031	0.4031	0.49633	-36.18315	34.66279	-22.67838	-17.56533	15.16369
14	0.5117	0.4060	3.82121	-34.09149	28.00334	-23.37146	-16.82262	14.59850
15	0.5221	0.4105	6.99068	-33.70947	23.61633	-25.13416	-16.75757	14.69099
16	0.5277	0.4119	9.09451	-33.85773	21.93035	-26.55254	-18.07803	16.15452
17	0.5383	0.4183	13.21739	-33.51579	17.08710	-28.58213	-18.01846	16.11260
18	0.5442	0.4247	16.77659	-32.70232	12.75641	-29.23597	-18.24014	15.97974
19	0.5509	0.4302	19.74567	-32.01878	9.17232	-30.03018	-18.30613	15.94369
20	0.5579	0.4362	22.48922	-31.56476	5.88497	-30.85137	-18.12124	15.86770
21	0.5657	0.4420	27.20337	-34.23749	3.38762	-34.98205	-19.85936	17.50396
22	0.5717	0.4485	29.73344	-34.10729	0.64775	-35.95032	-19.48231	17.39294
23	0.5787	0.4539	33.03609	-34.90073	-1.96174	-37.99113	-19.61846	17.77135
24	0.5874	0.4595	35.09612	-34.65670	-4.16387	-38.80971	-19.24289	17.66648
25	0.5965	0.4657	37.15880	-34.67750	-6.10327	-39.31783	-18.90480	17.49275
26	0.6051	0.4735	38.97910	-34.37142	-8.04133	-40.28129	-18.16225	17.30651
27	0.6136	0.4829	40.10654	-33.78317	-9.52369	-40.94633	-17.32463	17.07846
28	0.6225	0.4922	41.25365	-33.45290	-10.80666	-41.65109	-16.66234	16.96375
29	0.6293	0.5030	41.92881	-32.82112	-11.86801	-42.29883	-15.90030	16.88733
30	0.6360	0.5124	42.95618	-32.37254	-13.04047	-42.92222	-15.07861	16.66204
a16	0	0.362966	0.362966	0.972735	0.958875			
alfo	-1	0.571610	0.323512	0.952095	0.819709			
kgno	-1	0.239561	0.239561	0.978540	0.976486			
lmn	-3	0.716228	0.716228	0.956187	0.959070			
lmq	-1	0.476886	0.278977	0.890901	0.674796			
lony	-1	0.400022	0.138404	0.661277	0.400386			
ott	-1	0.230103	0.230103	0.858600	0.809197			
plvo	1	0.374198	0.283121	0.953825	0.465276			
sado	-2	0.473916	0.398677	0.427025	0.596046			
vabq	-4	0.317542	0.884225	0.559082	0.317542			
vdq	-2	0.271295	0.271295	0.929865	1.000000			

2012-11-06

6	0.7453	0.6219	-31.46924	-22.58495	59.13438	-10.68515	2.13028	10.88617
7	0.6864	0.5915	-45.37261	-39.25014	87.16945	-12.52669	1.22356	10.22005
8	0.6823	0.5857	-48.73423	-39.13931	83.37214	-18.52646	0.96929	8.59563
9	0.7117	0.6567	-48.10587	-18.94672	56.34060	-30.76070	1.46010	8.93901
10	0.7890	0.7272	-41.66220	7.65891	23.09696	-35.55902	1.67837	8.57543
11	0.8272	0.7523	-43.07396	27.46215	6.00060	-36.79053	1.79132	8.85198
12	0.8332	0.7601	-49.86700	43.91405	-2.69534	-37.96158	1.72692	9.14096
13	0.8298	0.7528	-57.37168	57.17722	-7.37332	-32.86206	1.69038	9.58200
14	0.8274	0.7174	-62.30831	65.18111	-9.78053	-26.09969	1.61071	9.84539
15	0.8287	0.7131	-59.72483	64.21898	-10.84112	-17.99379	1.54059	9.77285
16	0.8122	0.6997	-54.96437	60.54077	-11.60262	-9.30650	1.71066	11.59841
17	0.8032	0.6983	-43.86383	49.88035	-12.01839	0.01549	1.80807	12.33254
18	0.8080	0.7115	-31.12363	37.55501	-12.22871	5.68029	1.83576	12.49424
19	0.8082	0.7229	-21.24923	27.92004	-12.18976	9.64096	1.92614	12.82309
20	0.8038	0.7265	-13.90115	20.63747	-12.36976	11.63996	1.99978	13.21834
21	0.7975	0.7257	-8.99405	15.73309	-12.52718	12.31772	2.09722	13.62364
22	0.7910	0.7221	-5.66443	12.52465	-12.76424	12.44490	2.19600	14.06184
23	0.7875	0.7209	-3.02624	10.17640	-12.97673	11.38354	2.46829	14.32717
24	0.7853	0.7195	-0.99182	8.55728	-13.16609	10.15520	2.77157	14.56466
25	0.7845	0.7193	0.20556	7.72017	-13.23504	8.59694	3.16949	14.62518
26	0.7849	0.7202	1.79594	6.22715	-12.94972	8.50613	3.36818	14.69749
27	0.7846	0.7207	2.91742	5.76241	-13.16127	7.50043	3.55783	14.51325
28	0.7842	0.7198	3.43014	5.98035	-13.39766	6.43556	3.80305	14.90027
29	0.7839	0.7186	4.14090	6.10334	-13.72144	5.30633	4.02524	15.32695
30	0.7852	0.7170	4.29843	6.70732	-13.96218	4.13839	4.30602	15.56000
a54	-2	0.524741	0.524741	0.943492	0.914699			
bano	2	0.316694	0.316694	1.000000	1.000000			
biny	0	0.627861	0.627861	0.834226	1.000000			
chgq	0	0.659810	0.659810	0.960151	0.996395			
delo	3	0.780384	0.780384	0.790096	0.786778			
vdq	-2	0.604881	0.604881	0.957581	0.971437			

2012-11-27

6	0.6552	0.5707	15.50329	-0.83385	2.93227	31.12915	-17.34241	-9.83762
7	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00								
8	0.6502	0.5629	-13.03414	-22.77592	60.83543	43.95138	-12.75058	-7.68048
9	0.6179	0.5505	-23.63286	-33.24026	76.07087	43.59892	-10.75579	-6.71462
10	0.6034	0.5422	-24.62082	-35.36628	72.05752	38.81010	-8.82021	-5.51793
11	0.5955	0.5287	-24.60926	-38.70235	71.56566	38.63640	-8.42691	-5.17659
12	0.5918	0.5208	-21.40235	-38.93592	65.56906	35.65135	-7.77941	-4.22238
13	0.5932	0.5167	-16.19301	-36.86322	56.33848	30.05099	-6.44205	-3.59132
14	0.5950	0.5133	-12.72079	-37.34633	52.20250	27.02554	-6.07967	-2.82366
15	0.5995	0.5131	-8.83875	-36.87158	47.02338	23.06064	-5.11502	-2.34957
16	0.6054	0.5126	-9.41336	-40.52644	51.69911	22.47403	-5.47943	-2.15537
17	0.6087	0.5136	-6.02008	-40.91498	47.96772	19.53065	-5.52091	-1.52543
18	0.6151	0.5158	-3.35964	-41.03765	44.92148	17.50354	-5.20004	-1.04557
19	0.6233	0.5185	-1.71626	-40.89239	42.61624	16.82654	-5.31223	-0.47098
20	0.6328	0.5196	-0.45111	-40.81233	40.81764	16.58572	-5.57113	0.58336
21	0.6393	0.5219	0.62381	-36.90784	35.50289	14.76910	-5.18028	1.52136
22	0.6485	0.5250	1.52782	-36.98982	34.33547	14.64793	-5.30066	2.48698
23	0.6582	0.5286	2.24232	-36.98302	33.32341	14.67026	-5.42762	3.33047
24	0.6681	0.5308	3.37804	-38.72261	33.62689	15.14029	-5.70836	4.23547
25	0.6752	0.5341	4.27094	-39.07744	32.87481	14.89072	-5.75862	5.07274
26	0.6807	0.5375	4.95517	-39.30017	32.22852	14.89779	-6.26433	6.22674
27	0.6873	0.5404	5.97555	-39.85253	31.79426	14.50407	-6.05401	6.74159
28	0.6950	0.5443	6.92600	-40.23728	31.26685	14.09501	-5.95566	7.49953
29	0.7031	0.5480	7.95906	-40.68523	30.79689	13.60196	-5.76160	8.22089
30	0.7117	0.5525	9.45503	-42.62152	31.45916	14.06888	-5.64458	9.18193
a64	1	0.363103	0.191294	0.198872	0.699143			
batg	-2	0.438024	0.438024	0.996267	0.994923			
becq	-1	0.433436	0.405100	0.396017	0.499190			
ggn	0	0.656263	0.656263	0.906206	0.990362			
latq	-2	0.213899	0.213899	0.806583	1.000000			
lmq	0	1.000000	1.000000	0.925862	0.905702			
mca4	0	0.234966	0.234966	0.847532	0.871255			
natg	-3	0.501109	0.501109	0.969278	0.915851			
stuq	-1	0.551323	0.326568	0.877370	0.450032			
vabq	0	0.733933	0.733933	0.999679	0.999092			

2012-12-12

1	0.7160	0.6951	30.26202	-7.18034	-18.47298	-2.54363	176.68021	-112.59748
2	0.5897	0.5683	28.70928	-4.09542	-21.70569	-1.96630	113.99243	-97.58119
3	0.6160	0.5813	34.45986	-5.06579	-24.12165	-3.25135	88.84024	-71.41553
4	0.6367	0.6020	36.58079	-5.11129	-22.94166	-4.89857	71.83851	-54.85601
5	0.6694	0.5954	35.44389	-6.40718	-15.73197	-6.77225	59.84144	-43.48183
6	0.6833	0.5828	34.58029	-9.49220	-13.02959	-9.76588	61.29115	-42.01967
7	0.6846	0.5219	30.63626	-21.20428	8.09891	-17.15250	59.47194	-40.06536
8	0.6580	0.5259	11.70958	-30.42825	31.46646	-19.32397	42.60697	-27.82493
9	0.6393	0.5393	4.96200	-37.29322	39.31081	-26.17487	38.10475	-24.08399
10	0.6401	0.5586	5.77599	-35.24769	31.85792	-34.15273	34.32983	-21.03643
11	0.6408	0.5718	8.34360	-31.77386	23.56440	-44.76814	32.60156	-19.36204
12	0.6410	0.5805	9.64940	-26.52414	16.01524	-54.00663	29.87262	-17.19522
13	0.6334	0.5813	11.32908	-23.75965	11.18449	-64.44685	28.86886	-16.09691
14	0.6212	0.5797	12.54658	-21.50046	7.58095	-73.90872	28.01482	-15.18042
15	0.5981	0.5703	13.81467	-20.08192	4.94697	-81.64262	27.32433	-14.32381
16	0.5710	0.5516	16.08323	-21.01328	3.64932	-91.94595	32.04352	-16.14022
17	0.5383	0.5204	17.90800	-20.19661	1.14111	-91.41438	29.84584	-14.90037
18	0.5151	0.4985	20.89479	-21.27414	-0.64183	-92.60537	29.24598	-14.35771
19	0.5004	0.4794	30.94056	-29.33471	-2.74455	-117.50234	36.60574	-17.67566
20	0.4906	0.4656	34.41029	-31.46227	-3.97720	-111.61260	34.89722	-16.58787
21	0.4868	0.4592	37.05728	-33.03929	-4.96098	-104.23019	33.65876	-15.46912
22	0.4761	0.4492	36.99315	-32.16832	-5.57236	-90.91837	29.31500	-13.47956
23	0.4740	0.4464	41.25642	-35.46765	-6.45133	-89.25414	29.24893	-13.21791
24	0.4738	0.4458	45.64591	-38.55736	-7.60261	-88.40718	28.99592	-12.87678
25	0.4755	0.4460	50.11718	-41.68631	-8.78990	-87.89524	28.65661	-12.64932
ggn	1	0.334422	0.398693	0.270151	1.000000			
hal	1	0.190499	0.190499	0.978212	1.000000			
icq	0	0.846370	0.912460	0.791827	0.834824			
kgno	-1	0.544793	0.544793	0.948945	0.945444			
lmn	1	0.279621	0.109571	0.939472	0.449672			
ott	0	0.538970	0.538970	0.927793	0.973576			
sado	1	0.386272	0.386272	0.954600	1.000000			

2013-03-29

6	0.7870	0.7356	105.38406	-220.25211	69.27601	-141.41545	156.22318	-78.08391
7	0.8015	0.7488	221.36740	-200.96809	-77.48538	-140.25753	120.17698	-71.38446
8	0.7716	0.7314	608.49400	-201.76001	-486.65629	-231.54067	177.89558	-103.50071
9	0.7341	0.7180	697.55228	-84.06017	-652.84316	-237.81771	163.38048	-108.69741
10	0.7256	0.7137	619.97847	-56.48154	-574.47259	-236.05041	152.81122	-103.28765
11	0.7272	0.7065	527.81623	-40.08201	-487.28238	-232.00814	137.84473	-108.82969
12	0.7328	0.7023	426.50255	-6.18355	-416.84999	-224.20129	131.94494	-105.14683
13	0.7335	0.6913	273.86846	99.07552	-370.12381	-206.21529	120.80071	-110.28290
14	0.7315	0.6851	85.32901	236.78564	-321.75133	-180.51648	119.90560	-107.73203
15	0.7243	0.6774	-165.42848	440.18992	-277.22891	-146.43048	110.32635	-113.74531
16	0.7218	0.6741	-320.77466	580.91778	-265.13289	-123.44749	125.25751	-128.72709
17	0.7110	0.6731	-528.64234	735.15814	-211.80542	-95.69557	115.44488	-135.93118
18	0.7048	0.6707	-588.56682	747.11891	-162.84271	-80.01359	112.53881	-130.00262
19	0.7000	0.6725	-627.77255	755.57535	-130.74677	-71.37147	106.28834	-134.06238
20	0.7033	0.6782	-612.77255	721.18388	-110.38530	-68.89594	108.60513	-132.35249
21	0.7061	0.6837	-607.52294	705.16708	-98.75867	-68.97359	114.91027	-134.97895
22	0.7153	0.6947	-570.51094	653.05443	-82.58868	-64.07009	107.29869	-136.88917
23	0.7219	0.7012	-547.92134	622.85473	-74.23401	-60.99980	110.64205	-135.89121
24	0.7286	0.7080	-531.65730	598.24590	-65.08504	-57.51851	106.52382	-142.34445
25	0.7330	0.7142	-505.48971	570.95781	-63.23638	-54.55131	110.67927	-141.93887
26	0.7376	0.7196	-500.44542	558.51189	-55.35779	-54.26007	103.86669	-149.31357
27	0.7422	0.7235	-503.93779	557.89246	-50.95128	-47.96754	106.69470	-148.29778
28	0.7457	0.7276	-496.66861	544.46176	-44.64854	-44.00861	102.44635	-155.11166
29	0.7479	0.7326	-509.66394	555.65388	-42.81540	-39.01493	109.26659	-159.50387
30	0.7525	0.7379	-510.01256	552.88945	-39.89645	-32.33640	112.88832	-158.91033
drln	-3	0.815338	0.832338	0.749255	0.798339			
gbn	2	0.542935	0.542935	0.926998	1.000000			
mkvl	-2	0.698155	0.698155	0.980854	1.000000			
natg	0	0.334926	0.334926	0.747834	1.000000			
sjnn	8	0.961949	0.961949	0.986704	1.000000			

2013-05-17 13:43

6	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00								
7	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00								
8	0.5197	0.3672	-90.21952	-503.89529	939.66482	-415.23484	268.00649	-118.37337
9	0.5317	0.3206	-171.30500	-684.02842	1089.80848	-460.81721	259.36263	-115.70802
10	0.5521	0.2720	-155.59004	-704.32998	968.72872	-456.92661	230.41540	-104.05651
11	0.5770	0.2382	-114.08482	-705.34660	846.38334	-472.68290	217.54152	-100.02791
12	0.6233	0.2256	-70.85740	-642.78441	689.04040	-453.50817	200.83290	-91.83495
13	0.6383	0.2262	-37.24176	-594.79892	578.33770	-441.34874	187.96695	-86.19624
14	0.6543	0.2408	-9.11136	-540.66382	478.82145	-424.85313	174.40434	-82.66016
15	0.6659	0.2588	0.87488	-494.92073	413.68538	-405.65158	162.12878	-78.18175
16	0.6753	0.2790	-16.72878	-467.20501	416.81556	-385.35545	153.79913	-87.46253
17	0.6847	0.3119	-26.90535	-411.55252	369.29799	-356.08528	123.84400	-84.77519
18	0.6959	0.3481	-41.77165	-356.59928	328.78508	-326.25220	98.37230	-81.74762
19	0.7078	0.3819	-43.78511	-323.50134	297.31294	-314.18996	75.40969	-81.96996
20	0.7184	0.4177	-66.71032	-274.64080	267.50100	-283.55455	55.68740	-81.34597
21	0.7277	0.4497	-89.38784	-228.77160	240.27980	-255.53218	41.93929	-79.50381
22	0.7380	0.4853	-112.04888	-185.73943	216.74674	-227.67495	24.85142	-77.43436
23	0.7475	0.5181	-133.18124	-145.00702	195.86994	-200.98958	11.40318	-75.30452
24	0.7565	0.5473	-151.51336	-109.16337	179.20776	-176.79336	2.52920	-72.42170
25	0.7666	0.5787	-170.18607	-71.68041	162.30810	-152.01400	-6.39205	-70.27562
26	0.7753	0.6039	-186.96777	-39.16157	149.88012	-128.62944	-9.65160	-66.94437
27	0.7847	0.6205	-183.97778	-25.57229	137.52544	-125.27151	-12.39640	-66.96550
28	0.7969	0.6482	-194.51787	7.21322	121.20139	-102.58071	-13.55558	-64.71137
29	0.8041	0.6642	-208.80800	38.74746	111.47605	-79.53225	-6.75884	-64.85624
30	0.8148	0.6887	-214.70837	68.21499	96.81668	-57.97776	-4.99263	-62.17048
a54	-1	0.291566	0.442645	0.220588	0.211466			
bclq	-3	0.319838	0.179467	0.286619	0.493427			
kgno	-3	0.337118	0.089863	0.584373	0.984312			
kilo	-3	0.398714	0.398714	0.994338	0.993993			
mntq	-2	0.168290	0.168290	0.838712	0.775980			
sado	-5	0.150020	0.150020	0.931185	0.987194			
suno	-4	0.070430	0.081288	0.071628	0.058375			
ldq	-2	0.068995	0.027668	0.059068	0.120250			

2013-05-17 13:53

2	0.6188	0.5814	-6.24926	-48.35672	54.99911	73.12827	38.17294	-0.65688
3	0.6424	0.5932	-12.08898	-69.01460	81.43531	97.67742	34.63781	-1.20067
4	0.6074	0.5397	-18.27533	-70.28339	88.29057	92.34803	30.09782	-1.99009
5	0.6040	0.5039	-24.00000	-57.24336	80.10482	68.75718	26.79118	-2.30392
6	0.5940	0.4970	-22.46351	-58.35126	79.61119	74.56531	26.73606	-1.73292
7	0.5950	0.4820	-25.70666	-37.42248	61.26575	43.51955	23.31317	-1.72007
8	0.5447	0.4633	-20.59182	-13.74940	32.60463	13.67345	15.12972	-1.00781
9	0.5515	0.4804	-21.06907	-3.98112	23.10182	1.57632	13.74844	-0.78183
10	0.5536	0.4921	-22.43853	2.90756	17.25339	-6.70525	13.39114	-0.51371
11	0.5595	0.5124	-20.89722	6.50910	11.95935	-11.41975	12.19721	-0.18061
12	0.5545	0.5136	-19.04355	7.24375	9.10170	-14.24442	12.04360	0.06710
13	0.5470	0.5113	-15.36270	5.66587	6.71770	-15.69001	11.55094	0.46636
14	0.5375	0.5073	-10.55049	2.15623	5.17962	-15.62008	11.27400	0.78636
15	0.5281	0.4995	-4.53620	-2.34581	3.59177	-13.95486	10.15182	1.17438
16	0.5219	0.4969	1.74165	-10.42263	5.74733	-5.61280	11.25015	1.78417
17	0.5246	0.5042	7.66022	-15.05645	4.89737	-1.75165	10.46491	2.06756
18	0.5313	0.5096	12.31147	-18.14757	3.80736	1.59348	9.03436	2.30607
19	0.5359	0.5124	16.05965	-20.85220	3.05874	3.87265	8.37153	2.57990
20	0.5402	0.5167	19.03036	-22.96481	2.33039	5.58229	7.84575	2.80935
21	0.5486	0.5245	19.22139	-22.33857	1.70695	5.49573	7.40237	2.59410
22	0.5577	0.5337	19.87891	-22.13475	0.98949	5.79536	6.66054	2.59446
23	0.5700	0.5454	19.73327	-21.07182	0.21532	5.27847	6.02856	2.56251
24	0.5735	0.5485	21.27590	-22.10896	-0.23098	5.87116	5.78662	2.69223
25	0.5847	0.5598	21.21479	-21.65620	-0.52277	6.20284	5.18415	2.63007
26	0.5878	0.5630	22.77804	-22.95742	-0.75246	7.24495	4.95357	2.75123
bclq	3	0.587152	0.587152	0.980056	0.983007			
kgno	0	0.507193	0.312181	0.702206	0.854635			
sado	1	0.295679	0.222672	0.368685	1.000000			

2013-07-11

3	0.5937	0.4890	28.45018	16.76853	-40.06101	3.51550	13.59303	14.07948
4	0.6240	0.5145	31.30037	22.10386	-43.71967	3.69538	13.23441	11.42572
5	0.6785	0.5426	28.84942	24.71711	-36.86870	3.41254	11.58919	9.75527
6	0.6989	0.5592	28.20778	24.39134	-35.62228	3.14079	12.71307	10.03780
7	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00								
8	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00								
9	0.5889	0.4040	-19.70247	-31.18093	71.61948	-7.70422	15.54031	9.21035
10	0.5857	0.3705	-15.13185	-39.40823	66.64499	-12.89789	14.24410	8.26160
11	0.5883	0.3496	-7.48618	-43.01473	57.60749	-18.21611	14.06843	7.69125
12	0.5958	0.3441	0.70676	-44.82987	48.30684	-23.90917	13.64399	7.34690
13	0.5939	0.3445	8.22447	-51.85327	46.41731	-32.20898	15.18445	8.08276
14	0.6006	0.3490	12.94071	-51.88496	40.57381	-34.90607	15.22273	8.04075
15	0.6057	0.3587	15.25741	-51.33160	36.99377	-35.40126	15.66305	8.24943
16	0.6122	0.3651	13.16252	-50.08472	37.76434	-33.18790	18.36562	9.53732
17	0.6191	0.3737	11.54315	-45.77481	34.62477	-28.42492	19.07583	9.76870
18	0.6289	0.3792	9.19668	-40.31027	31.18351	-22.82103	19.27433	9.74221
19	0.6356	0.3845	7.11148	-35.64740	28.45928	-18.25161	19.39660	9.86985
20	0.6479	0.3905	6.89526	-33.01446	25.88486	-15.93099	19.79547	9.65442
21	0.6590	0.3985	6.76876	-30.96609	23.80252	-14.41477	20.38617	9.54586
22	0.6684	0.4060	6.48274	-29.12891	22.10065	-13.04584	21.13468	9.59294
23	0.6814	0.4114	6.06984	-27.16701	20.43932	-11.49316	21.76257	9.61566
24	0.6924	0.4154	5.67422	-25.46059	19.02600	-10.09561	22.48553	9.59867
25	0.7028	0.4218	5.39786	-23.98661	17.74747	-8.92879	23.05861	9.67201
26	0.7102	0.4276	5.14439	-22.66733	16.62661	-7.85377	23.55372	9.75634
27	0.7173	0.4331	4.54965	-21.23240	15.72856	-6.46101	23.60577	9.93360
dmcq	-1	0.071228	0.071228	0.992901	1.000000			
gac	0	0.602331	0.367220	0.532379	0.907394			
ggn	-3	0.419517	0.292111	0.546923	0.968486			
icq	-5	0.071370	0.071370	1.000000	1.000000			
latq	-1	0.385711	0.385711	0.997471	0.999096			
lmn	1	0.539394	0.499054	0.579735	1.000000			
ldq	-3	0.319484	0.319484	0.792527	1.000000			

2013-08-29 04:47

6	0.6366	0.4697	-2.90825	-37.16594	33.10024	-94.90997	-563.57300	-80.50027
7	0.6438	0.4747	63.08203	-26.69866	-43.45917	-95.07378	-490.34343	-75.17843
8	0.6437	0.4723	80.39334	-8.09577	-79.16088	-98.77019	-430.92011	-69.79958
9	0.6418	0.4697	70.32121	12.74692	-89.58876	-104.39125	-381.48905	-64.83738
10	0.6402	0.4710	47.10527	33.06070	-86.28341	-110.96628	-339.63663	-60.46612
11	0.6389	0.4750	18.47861	51.87798	-76.06147	-117.98381	-303.58554	-56.69992
12	0.6382	0.4816	-11.55534	69.08128	-62.83456	-125.23800	-272.11068	-53.46251
13	0.6376	0.4896	-41.18401	84.82869	-48.60624	-132.64582	-244.22011	-50.68133
14	0.6371	0.4990	-69.61181	99.42053	-34.47634	-140.19103	-219.32868	-48.27207
15	0.6379	0.4986	-96.94932	110.27311	-17.57972	-145.59927	-178.97228	-44.13433
16	0.6367	0.4968	-127.99594	125.88492	-1.94560	-153.74946	-182.18714	-48.43317
17	0.6327	0.5011	-154.35501	137.61569	12.92480	-159.30518	-179.66285	-47.71343
18	0.6261	0.5012	-181.16909	148.14960	29.47258	-166.94145	-164.28097	-46.45858
19	0.6184	0.5010	-204.08298	156.90861	43.95052	-174.48464	-149.26931	-45.30151
20	0.6098	0.5006	-223.30077	163.86189	56.32422	-181.95825	-134.61725	-44.25263
21	0.6025	0.5022	-239.80410	169.56509	67.19310	-189.46461	-120.38015	-43.36900
22	0.5957	0.5018	-253.61320	174.11764	76.53783	-197.04031	-106.51626	-42.60971
23	0.5925	0.4990	-264.87655	177.95920	84.11866	-204.74312	-92.87784	-41.66050
24	0.5866	0.4990	-273.87932	180.59124	90.70388	-212.59179	-79.71736	-41.11137
25	0.5743	0.4940	-272.08572	176.71633	93.07940	-213.76714	-64.77990	-39.37311
26	0.5674	0.4926	-279.44336	180.55743	96.79489	-220.93936	-64.55341	-39.75504
27	0.5627	0.4917	-284.23807	181.84356	100.56960	-229.57027	-52.63759	-39.43341
28	0.5585	0.4912	-288.49916	183.09385	103.81517	-238.68934	-40.96895	-39.15340
29	0.5553	0.4911	-292.66295	184.55550	106.74935	-248.39637	-29.50386	-38.89708
30	0.5527	0.4914	-297.20363	186.52482	109.54465	-258.79959	-18.31540	-38.65175
cheg	3	0.666186	0.666186	0.897482	0.940120			
sjnn	0	0.273193	0.115580	0.346263	0.357735			

2013-08-29 08:56

6	0.6053	0.4263	-255.87129	16.51550	240.31471	-123.94117	943.64434	-4.79824
7	0.6104	0.4116	-225.71925	4.13528	222.16966	-120.38209	866.27457	-1.10963
8	0.6171	0.4048	-193.00926	-6.52865	199.79204	-116.73251	803.15668	1.34211
9	0.6241	0.4023	-162.40567	-15.07529	177.47361	-113.21590	750.63712	3.12460
10	0.6286	0.4016	-135.51200	-21.80791	157.12691	-109.88695	706.22877	4.49707
11	0.6290	0.4015	-112.57960	-27.34691	139.61090	-106.72793	668.20843	5.61254
12	0.6294	0.4014	-93.05778	-32.04262	124.71009	-103.70410	635.32649	6.55720
13	0.6298	0.4013	-76.71025	-35.78410	112.06529	-100.79618	606.59349	7.41193
14	0.6301	0.3990	-63.17157	-38.66813	101.39485	-97.98872	581.31155	8.20921
15	0.6305	0.4074	-51.88851	-40.60500	92.16759	-90.90843	564.76368	10.90294
16	0.6309	0.4020	-68.51851	-34.93794	103.11683	-93.95207	613.86029	11.95682
17	0.6307	0.4037	-52.88334	-40.21837	92.77262	-90.61717	610.20946	13.09758
18	0.6303	0.4035	-35.25158	-46.76179	81.72055	-86.92241	606.28887	13.79291
19	0.6299	0.4032	-17.64141	-53.65215	71.04515	-82.99735	602.19217	14.35172
20	0.6302	0.4031	0.47508	-61.09259	60.39925	-78.79995	597.95456	14.72091
21	0.6306	0.4033	18.76949	-68.86378	49.91437	-74.32905	593.60576	14.94647
22	0.6296	0.4087	38.67904	-77.30924	38.50092	-69.48377	589.27156	15.30754
23	0.6243	0.4110	57.10373	-85.56281	28.38624	-64.42402	584.75125	15.28197
24	0.6222	0.4057	73.96800	-93.78590	19.70758	-65.30960	577.69287	13.53849
25	0.6184	0.4084	92.03403	-102.31005	10.22920	-59.88405	573.46991	13.34451
26	0.6147	0.4117	109.49739	-110.72399	1.24049	-54.13554	569.23036	13.05797
27	0.6119	0.4158	125.92717	-118.86412	-6.99650	-48.07842	564.96653	12.74069
28	0.6103	0.4201	141.01235	-126.58183	-14.32275	-41.69060	560.69463	12.42425
29	0.6088	0.4244	154.16650	-133.57521	-20.45352	-34.98140	556.41652	12.16194
30	0.6065	0.4318	167.05586	-140.22693	-26.66574	-27.76256	552.25530	12.30005
cheg	8	0.537676	0.537676	0.904554	0.965342			
sjnn	0	0.260262	0.119122	0.314417	0.347247			

2013-09-21

6	0.3306	0.2877	105.49068	134.40852	-176.38638	47.56085	103.09586	-1.37970
7	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
8	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
9	1.0000	1.0000	0.10000E+01	-0.10000E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
10	0.3374	0.2709	-103.91734	-95.96149	289.27668	52.66913	76.23190	21.04694
11	0.3229	0.2577	-89.43817	-98.06207	239.67891	36.89100	62.55066	17.56651
12	0.3180	0.2445	-70.55183	-100.48388	205.57517	26.12723	57.41144	20.36442
13	0.3056	0.2284	-51.84287	-102.78454	178.80887	16.46952	53.16295	19.61155
14	0.3029	0.2151	-34.47706	-108.51686	161.24292	8.16757	51.22481	23.31430
15	0.3002	0.2099	-19.88374	-115.26129	149.51087	0.80583	49.93172	24.10404
16	0.3066	0.2092	-14.11785	-128.57637	155.33006	-5.07663	54.98647	30.07913
17	0.3014	0.2088	0.08806	-140.54913	150.33206	-12.07645	56.38196	31.54669
18	0.2988	0.2073	10.24166	-130.09158	126.61660	-14.79104	50.75655	31.94862
19	0.2957	0.2076	19.42990	-138.22088	124.14780	-18.35705	53.36978	34.07662
20	0.2932	0.2072	22.88315	-134.98499	116.53088	-18.53759	52.57398	38.45731
21	0.2943	0.2091	27.45242	-135.26957	111.54311	-19.71549	52.46914	39.76943
22	0.2958	0.2105	30.79820	-134.76529	107.09753	-20.21732	52.49345	41.66239
23	0.3015	0.2136	31.17321	-129.81909	101.30571	-19.01989	52.27492	46.02888
24	0.3068	0.2164	33.37667	-129.54605	98.39011	-19.22131	52.21843	47.17924
25	0.3124	0.2209	32.07380	-124.03957	93.88721	-17.49560	52.08944	51.59400
26	0.3171	0.2250	33.81284	-123.78668	91.53150	-17.51813	52.30277	53.70777
27	0.3259	0.2297	33.21452	-123.43597	91.61141	-16.50241	54.51051	60.39828
28	0.3276	0.2323	34.62803	-123.59134	90.06853	-15.94839	55.26902	62.16161
29	0.3375	0.2387	33.22486	-118.41609	86.18810	-14.55372	55.15348	66.22734
30	0.3440	0.2437	35.74963	-120.39302	85.39831	-15.41370	55.19192	67.65223
a64	2	0.149246	0.103168	0.195324	1.000000			
batg	-2	0.103360	0.103360	0.995395	0.993888			
ggn	-2	0.186569	0.186382	0.186757	1.000000			
lmn	-1	0.089158	0.089158	0.979644	0.879528			
ott	0	0.082011	0.082011	0.817753	0.913757			
sado	-1	0.347370	0.143393	0.257475	0.641241			
schq	-1	0.492580	0.149201	0.477571	0.850967			

2013-10-30

6	0.7053	0.5703	-35.57369	34.71604	64.46468	-87.84782	-78.88254	-61.51659
7	0.6557	0.5043	-77.04611	-9.00768	161.02871	-104.00884	-71.09261	-49.45993
8	0.6079	0.4353	-136.09830	-66.44592	267.63558	-119.74365	-67.04493	-39.08064
9	0.5715	0.4123	-174.98973	-97.40200	309.42515	-128.91434	-62.92179	-33.52612
10	0.5567	0.4100	-176.80423	-90.83502	278.32441	-126.28533	-57.65542	-29.39585
11	0.5585	0.4167	-170.70652	-74.93483	241.77455	-124.32471	-55.28584	-27.13484
12	0.5740	0.4281	-162.04340	-56.87716	207.27770	-119.75996	-53.22357	-25.29123
13	0.5905	0.4446	-150.75352	-40.42806	176.30062	-110.68933	-50.10013	-22.72037
14	0.5932	0.4492	-155.40941	-28.89628	166.35625	-110.72655	-52.08526	-22.75201
15	0.5942	0.4581	-153.39119	-17.82619	152.25536	-103.49151	-50.75075	-20.89365
16	0.5896	0.4530	-162.07600	-18.94753	165.39322	-99.66588	-56.77396	-21.63682
17	0.6009	0.4611	-159.71855	-6.07734	149.47462	-88.67203	-56.44797	-20.42078
18	0.6106	0.4694	-159.34256	5.18438	137.54915	-78.51616	-55.87913	-18.91731
19	0.6066	0.4743	-141.22220	13.13017	113.47556	-61.05714	-48.85319	-15.37815
20	0.5980	0.4756	-142.68837	21.18423	106.77059	-54.16434	-48.63074	-14.47076
21	0.5944	0.4785	-144.97126	28.56788	101.83781	-48.96913	-47.40163	-13.73580
22	0.5908	0.4814	-152.59266	37.11841	100.38938	-46.19440	-49.00996	-13.07802
23	0.5820	0.4859	-150.77522	42.19838	93.91648	-40.61311	-48.36696	-11.72378
24	0.5799	0.4896	-159.60505	50.64715	93.83981	-39.65550	-50.13266	-11.00049
25	0.5778	0.4938	-163.73638	57.46239	91.23758	-38.19752	-50.24913	-9.85314
26	0.5732	0.5018	-163.17216	62.23715	86.58867	-35.02372	-49.13765	-8.77356
27	0.5721	0.5056	-168.20097	68.71113	85.31979	-35.17754	-49.24246	-7.57607
28	0.5663	0.5088	-174.48586	74.48879	85.82683	-35.34352	-49.31176	-6.43020
29	0.5689	0.5119	-180.33874	80.31238	85.99830	-36.88045	-48.28668	-5.37229
30	0.5642	0.5163	-187.53602	86.39855	87.55965	-39.03155	-49.15252	-4.37695
clm	0	0.454920	0.300397	0.571570	0.492792			
eunu	3	0.424143	0.224161	0.624125	1.000000			
frb	3	0.413397	0.413397	0.935702	0.924666			
ilon	0	0.425158	0.219740	0.358771	0.696963			
res	-3	0.332390	0.332390	0.923439	0.868700			