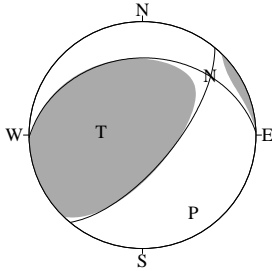


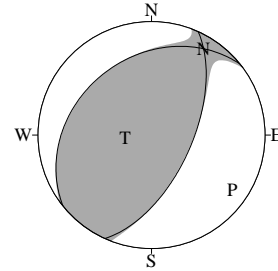
CMT SOLUTIONS FOR EARTHQUAKES IN DECEMBER, 2017

2017/12/02 00:12:29.9
SW IBARAKI PREF
Hypo.:36° 3.1'N 139°53.4'E 43km



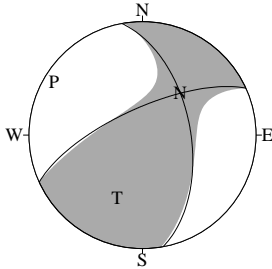
Cent.:36° 3.1'N 139°53.5'E 43km $\Delta t = 0.4$
Mo: 4.07×10^{15} N·m Mw:4.3 Mj:4.4 (sec)
mrr: 2.73 mtt:-2.59 mff:-0.14
mrt: 1.08 mrf: 2.53 mtf:-1.41 ($\times 10^{15}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1: 40° 67° 66° P-axis:-3.93 147° 19°
NP2:269° 33° 134° T-axis: 4.21 274° 60°
N-axis:-0.28 49° 22°
V.R.: 75% ϵ : 0.07 N:7 COMP:10

2017/12/02 05:48: 0.9
S OFF URAKAWA
Hypo.:42° 2.2'N 142°30.3'E 67km



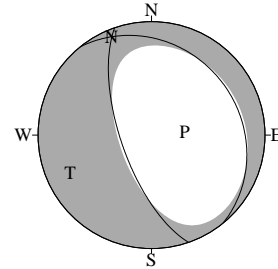
Cent.:41°58.2'N 142°30.6'E 65km $\Delta t = 0.9$
Mo: 3.20×10^{16} N·m Mw:4.9 Mj:4.9 (sec)
mrr: 2.59 mtt:-0.89 mff:-1.70
mrt: 0.36 mrf: 1.63 mtf:-1.50 ($\times 10^{16}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1: 24° 61° 76° P-axis:-3.25 124° 15°
NP2:231° 32° 113° T-axis: 3.14 263° 71°
N-axis: 0.10 31° 12°
V.R.: 81% ϵ :-0.03 N:18 COMP:29

2017/12/06 00:13:49.3
CENTRAL NAGANO PREF
Hypo.:36°22.6'N 137°58.3'E 10km



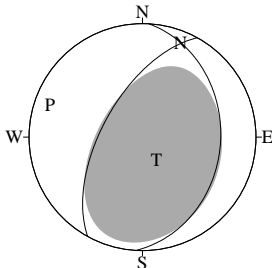
Cent.:36°19.2'N 137°58.4'E 14km $\Delta t = 5.3$
Mo: 4.03×10^{16} N·m Mw:5.0 Mj:5.3 (sec)
mrr: 1.67 mtt: 0.97 mff:-2.64
mrt:-1.92 mrf:-0.06 mtf:-2.71 ($\times 10^{16}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1:350° 55° 24° P-axis:-4.26 301° 10°
NP2:245° 71° 143° T-axis: 3.80 202° 40°
N-axis: 0.46 42° 49°
V.R.: 83% ϵ :-0.11 N:13 COMP:17

2017/12/06 00:22:10.4
NORTHERN IBARAKI PREF
Hypo.:36°48.7'N 140°32.4'E 8km



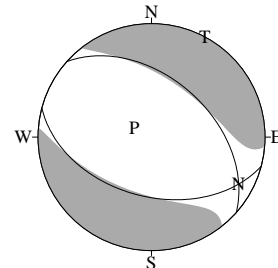
Cent.:36°48.7'N 140°32.2'E 10km $\Delta t = 0.4$
Mo: 5.16×10^{15} N·m Mw:4.4 Mj:4.5 (sec)
mrr:-3.90 mtt: 1.32 mff: 2.58
mrt:-0.82 mrf: 3.60 mtf:-1.25 ($\times 10^{15}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1:321° 23°-108° P-axis:-5.51 85° 66°
NP2:161° 68° -82° T-axis: 4.81 245° 22°
N-axis: 0.71 338° 7°
V.R.: 79% ϵ :-0.13 N:18 COMP:21

2017/12/15 11:42:26.0
SOUTHERN BOSO PENINSULA
Hypo.:35°11.0'N 139°50.9'E 96km



Cent.:35°11.0'N 139°51.0'E 96km $\Delta t = 0.5$
Mo: 6.13×10^{15} N·m Mw:4.5 Mj:4.4 (sec)
mrr: 5.46 mtt:-0.80 mff:-4.66
mrt:-2.35 mrf:-2.33 mtf:-1.05 ($\times 10^{15}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1: 3° 32° 68° P-axis:-5.69 289° 15°
NP2:209° 61° 103° T-axis: 6.57 148° 71°
N-axis:-0.89 22° 11°
V.R.: 82% ϵ : 0.13 N:31 COMP:39

2017/12/15 17:09:29.5
NEAR TANEGASHIMA ISLAND
Hypo.:30°10.6'N 130°52.9'E 14km

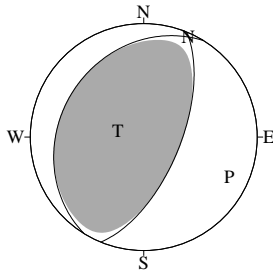


Cent.:30°10.5'N 130°52.0'E 14km $\Delta t = 0.4$
Mo: 4.67×10^{15} N·m Mw:4.4 Mj:4.4 (sec)
mrr:-4.10 mtt: 3.70 mff: 0.40
mrt:-0.38 mrf:-0.73 mtf:-2.50 ($\times 10^{15}$ N·m)
STR DIP SLIP MOM AZM PLG
NP1:105° 47°-109° P-axis:-4.30 298° 76°
NP2:312° 47° -71° T-axis: 5.05 28° 0°
N-axis:-0.74 118° 14°
V.R.: 78% ϵ : 0.15 N:27 COMP:35

EQUAL AREA PROJECTON, LOWER HEMISPHERE.

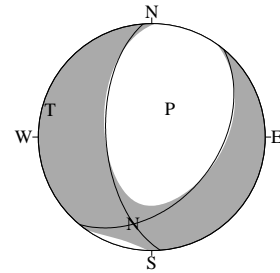
Hypo.:Location of hypocenter, Cent.:Location of centroid, Δt :Centroid time minus origin time
Mo:Total scalar moment, Mw:Moment Magnitude, Mj:JMA Magnitude
mrr,mtt,mff,mrt,mrf,mtf: Moment tensor components, STR,DIP,SLIP:Fault parameters of nodal plane
MOM,AZM,PLG: Moment tensor component, azimuth and plunge of P-, T-, N-axis
V.R.:Variance Reduction, ϵ :Non-double couple component ratio, N:Number of stations, COMP:Number of components

2017/12/19 06:54:34.1
 E OFF MIYAGI PREF
 Hypo.:38°10.9'N 141°41.1'E 51km



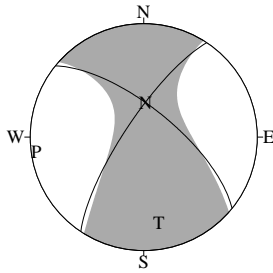
Cent.:38°10.5'N 141°41.3'E 51km $\Delta t = 0.7$
 Mo: 2.06×10^{16} N·m Mw:4.8 Mj:4.6 (sec)
 mrr:-1.67 mtt:-0.39 mff:-1.29
 mrt: 0.40 mrf: 1.18 mtf:-0.63 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 22° 64° 86° P-axis:-2.02 115° 18°
 NP2:212° 27° 98° T-axis: 2.10 283° 71°
 N-axis:-0.08 24° 4°
 V.R.: 84% ϵ : 0.04 N:39 COMP:53

2017/12/19 08:28:27.3
 E OFF TANEGASHIMA ISLAND
 Hypo.:30°36.0'N 132°10.5'E 51km



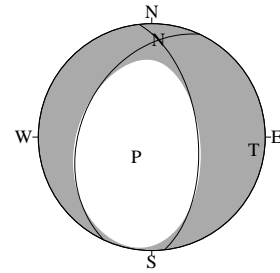
Cent.:30°39.7'N 132° 9.6'E 10km $\Delta t = 0.6$
 Mo: 3.31×10^{16} N·m Mw:4.9 Mj:4.7 (sec)
 mrr:-2.78 mtt: 0.06 mff: 2.72
 mrt:-1.10 mrf: 1.15 mtf: 0.99 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 40° 42° -55° P-axis:-3.48 33° 66°
 NP2:176° 57°-118° T-axis: 3.15 285° 8°
 N-axis: 0.32 192° 23°
 V.R.: 81% ϵ :-0.09 N:15 COMP:26

2017/12/20 02:52:37.1
 E OFF HACHIJOJIMA ISLAND
 Hypo.:33°31.8'N 141° 8.7'E 57km



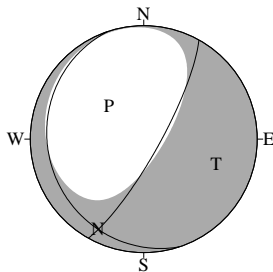
Cent.:33°25.9'N 141°10.2'E 39km $\Delta t = 0.7$
 Mo: 2.96×10^{16} N·m Mw:4.9 Mj:5.0 (sec)
 mrr: 0.90 mtt: 2.19 mff:-3.10
 mrt:-0.74 mrf:-0.45 mtf: 0.80 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:214° 76° 159° P-axis:-3.24 262° 5°
 NP2:309° 69° 14° T-axis: 2.68 170° 24°
 N-axis: 0.56 3° 65°
 V.R.: 77% ϵ :-0.17 N:17 COMP:27

2017/12/20 22:40:54.7
 E OFF TANEGASHIMA ISLAND
 Hypo.:30°36.5'N 132° 4.3'E 61km



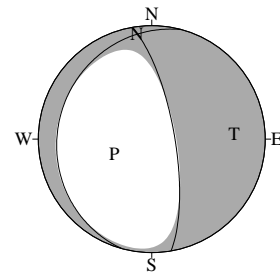
Cent.:30°46.9'N 132° 5.2'E 10km $\Delta t = 7.5$
 Mo: 2.40×10^{17} N·m Mw:5.5 Mj:5.2 (sec)
 mrr:-2.17 mtt: 0.11 mff: 2.06
 mrt: 0.61 mrf:-0.85 mtf: 0.36 ($\times 10^{17}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:354° 57°-108° P-axis:-2.50 218° 72°
 NP2:205° 38° -64° T-axis: 2.20 97° 10°
 N-axis: 0.30 4° 15°
 V.R.: 82% ϵ :-0.10 N:15 COMP:34

2017/12/20 23:45: 0.0
 E OFF TANEGASHIMA ISLAND
 Hypo.:30°41.8'N 132° 5.4'E 54km



Cent.:30°41.7'N 132° 5.8'E 10km $\Delta t = 0.7$
 Mo: 2.80×10^{16} N·m Mw:4.9 Mj:4.5 (sec)
 mrr:-1.28 mtt: 0.10 mff: 1.19
 mrt:-1.47 mrf:-2.08 mtf:-0.15 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 29° 79° -78° P-axis:-3.06 314° 55°
 NP2:162° 16°-136° T-axis: 2.54 109° 33°
 N-axis: 0.51 207° 12°
 V.R.: 84% ϵ :-0.17 N:40 COMP:52

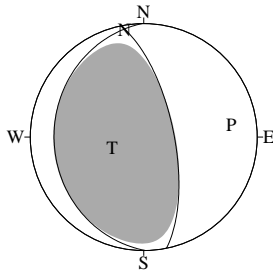
2017/12/21 00:39:54.1
 E OFF TANEGASHIMA ISLAND
 Hypo.:30°38.2'N 132° 6.1'E 53km



Cent.:30°38.1'N 132° 6.7'E 10km $\Delta t = 0.7$
 Mo: 2.14×10^{16} N·m Mw:4.8 Mj:4.2 (sec)
 mrr:-1.22 mtt: 0.08 mff: 1.14
 mrt: 0.41 mrf:-1.74 mtf: 0.09 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:350° 74° -98° P-axis:-2.21 249° 61°
 NP2:196° 18° -66° T-axis: 2.07 86° 28°
 N-axis: 0.15 352° 7°
 V.R.: 76% ϵ :-0.07 N:11 COMP:16

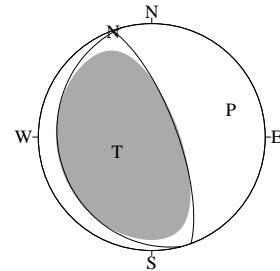
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

2017/12/21 09:40:13.5
 NEAR TORISHIMA IS
 Hypo.:29°15.9'N 142°23.8'E 51km



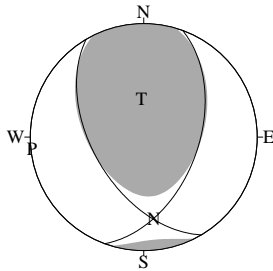
Cent.:29°15.6'N 142°29.1'E 10km $\Delta t = 0.8$
 Mo: 2.11×10^{16} N·m Mw:4.8 Mj:4.6 (sec)
 mrr: 1.50 mtt:-0.11 mff:-1.39
 mrt:-0.37 mrf: 1.49 mtf: 0.13 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:349° 68° 86° P-axis:-2.06 82° 23°
 NP2:179° 22° 100° T-axis: 2.17 252° 66°
 N-axis:-0.11 350° 4°
 V.R.: 29% ϵ : 0.05 N:8 COMP:13

2017/12/21 09:42:36.0
 NEAR TORISHIMA IS
 Hypo.:29°17.7'N 142°16.6'E 55km



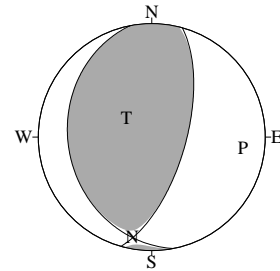
Cent.:29°13.8'N 142°26.2'E 10km $\Delta t = 0.8$
 Mo: 3.21×10^{16} N·m Mw:4.9 Mj:4.6 (sec)
 mrr: 2.04 mtt:-0.40 mff:-1.63
 mrt:-0.93 mrf: 2.41 mtf: 0.42 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:340° 72° 88° P-axis:-3.07 71° 27°
 NP2:165° 18° 95° T-axis: 3.35 247° 63°
 N-axis:-0.28 340° 1°
 V.R.: 49% ϵ : 0.08 N:10 COMP:17

2017/12/21 10:56:53.4
 NEAR TORISHIMA IS
 Hypo.:29°17.7'N 142°27.6'E 49km



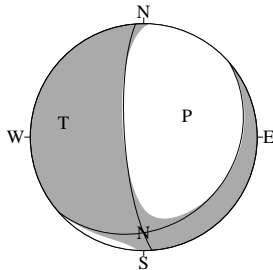
Cent.:29°14.1'N 142°28.4'E 10km $\Delta t = 7.9$
 Mo: 8.24×10^{16} N·m Mw:5.2 Mj:5.4 (sec)
 mrr: 6.55 mtt: 1.14 mff:-7.69
 mrt: 4.02 mrf: 0.04 mtf: 0.79 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 20° 50° 128° P-axis:-7.77 264° 1°
 NP2:149° 53° 54° T-axis: 8.71 357° 62°
 N-axis:-0.93 173° 28°
 V.R.: 80% ϵ : 0.11 N:24 COMP:37

2017/12/21 12:00:17.7
 NEAR TORISHIMA IS
 Hypo.:29°18.5'N 142°43.0'E 53km



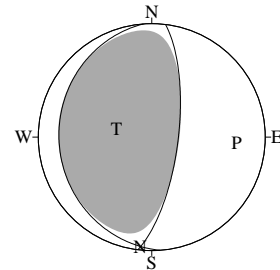
Cent.:29°17.5'N 142°43.3'E 10km $\Delta t = 4.6$
 Mo: 4.50×10^{17} N·m Mw:5.7 Mj:6.0 (sec)
 mrr: 3.34 mtt: 0.14 mff:-3.48
 mrt: 1.15 mrf: 2.65 mtf:-0.14 ($\times 10^{17}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 16° 65° 102° P-axis:-4.40 97° 20°
 NP2:169° 27° 66° T-axis: 4.50 308° 67°
 N-axis:-0.10 191° 11°
 V.R.: 81% ϵ : 0.01 N:28 COMP:57

2017/12/21 12:40:53.7
 E OFF TANEGASHIMA ISLAND
 Hypo.:30°39.8'N 132° 4.9'E 56km



Cent.:30°39.1'N 132° 4.4'E 10km $\Delta t = 0.9$
 Mo: 4.29×10^{16} N·m Mw:5.0 Mj:4.4 (sec)
 mrr:-2.00 mtt: 0.10 mff: 1.90
 mrt:-0.69 mrf: 3.60 mtf: 1.09 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 49° 22° -39° P-axis:-4.44 64° 55°
 NP2:176° 76° -107° T-axis: 4.14 280° 29°
 N-axis: 0.30 180° 17°
 V.R.: 82% ϵ : -0.07 N:21 COMP:37

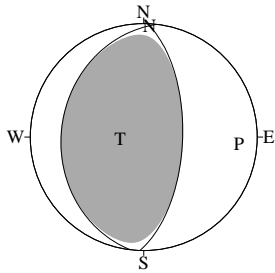
2017/12/23 08:10:55.8
 NEAR TORISHIMA IS
 Hypo.:29°21.9'N 142°34.7'E 39km



Cent.:29°21.1'N 142°39.3'E 10km $\Delta t = 0.9$
 Mo: 3.99×10^{16} N·m Mw:5.0 Mj:5.2 (sec)
 mrr: 2.55 mtt:-0.17 mff:-2.37
 mrt: 0.48 mrf: 3.10 mtf:-0.03 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 7° 71° 94° P-axis:-3.89 94° 26°
 NP2:176° 19° 80° T-axis: 4.09 283° 64°
 N-axis:-0.20 186° 3°
 V.R.: 77% ϵ : 0.05 N:11 COMP:16

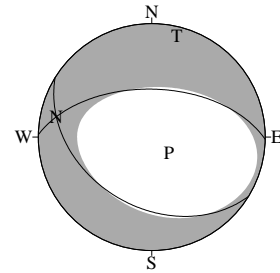
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

2017/12/27 22:05:29.4
 CENTRAL CHIBA PREF
 Hypo.:35°33.9'N 140° 5.0'E 69km



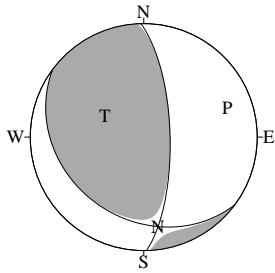
Cent.:35°33.9'N 140° 5.7'E 69km $\Delta t = 0.5$
 Mo: 9.96×10^{15} N·m Mw:4.6 Mj:4.5 (sec)
 mrr:-8.40 mtt:-0.31 mff:-8.08
 mrt:-0.02 mrf: 5.56 mtf:-0.60 ($\times 10^{15}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1: 2° 62° 88° P-axis:-9.82 94° 17°
 NP2:187° 28° 94° T-axis:10.10 266° 73°
 N-axis:-0.28 3° 2°
 V.R.: 76% ϵ : 0.03 N:13 COMP:16

2017/12/29 06:14:53.9
 SE OFF ERIMOMISAKI
 Hypo.:41°43.9'N 143°40.4'E 41km



Cent.:41°38.6'N 143°40.0'E 28km $\Delta t = 1.6$
 Mo: 3.34×10^{16} N·m Mw:4.9 Mj:4.8 (sec)
 mrr:-3.16 mtt: 2.71 mff: 0.45
 mrt: 1.16 mrf: 0.76 mtf:-0.79 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:122° 39° -65° P-axis:-3.59 133° 73°
 NP2:271° 55° -108° T-axis: 3.09 14° 9°
 N-axis: 0.50 282° 15°
 V.R.: 83% ϵ : -0.14 N:26 COMP:49

2017/12/31 12:48:59.0
 NEAR TOKARA ISLANDS
 Hypo.:29°36.8'N 129°31.8'E 165km



Cent.:29°34.8'N 129°31.6'E 173km $\Delta t = 1.5$
 Mo: 5.37×10^{16} N·m Mw:5.1 Mj:4.9 (sec)
 mrr: 3.08 mtt:-0.20 mff:-2.88
 mrt: 0.63 mrf: 3.95 mtf: 1.99 ($\times 10^{16}$ N·m)
 STR DIP SLIP MOM AZM PLG
 NP1:359° 71° 112° P-axis:-5.31 71° 23°
 NP2:127° 29° 42° T-axis: 5.44 299° 58°
 N-axis:-0.13 171° 21°
 V.R.: 87% ϵ : 0.02 N:25 COMP:35