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(Mw=6.5)

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150 km

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y  
z

$$v_m = \left(\frac{2yz}{e}\right) \left(\frac{\Delta\sigma}{\rho\beta}\right)$$

( )

$\omega^2$   
) 1.68

sfact  
0.5

(

2.0

(Point source)  
(Event)

f>1)

(Hz

$\omega^2$  (Source spectrum)

[ ]

30 Hz 0.1 Hz

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$$f_c = \frac{\left(\frac{yz}{e}\right)\beta}{\Delta l}$$

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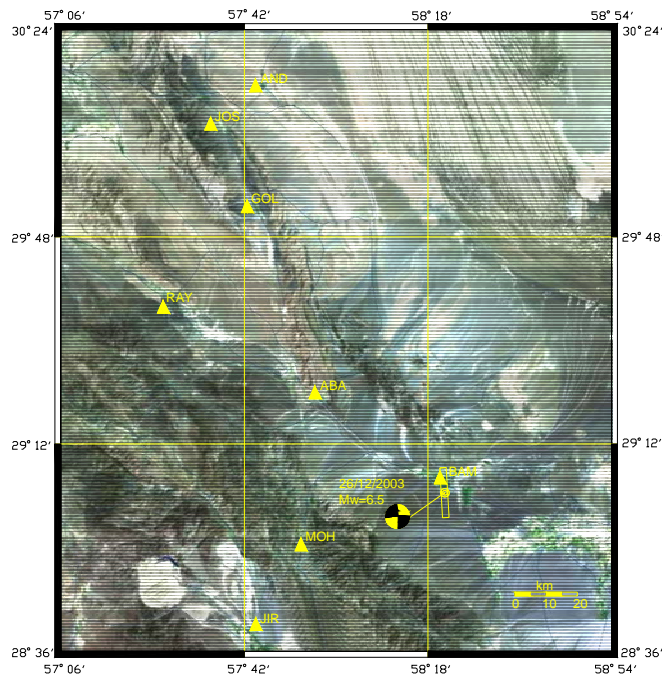
$$m_0 = \Delta\sigma \Delta l^3$$

( )

$\beta$

$\Delta\sigma$

Code	Station Name	Lat. (°N)	Long. (°E)	Epicentral Distance (km)	Foundation Category	PGA (cm/s/s) (L)	PGA (cm/s/s) (T)
BAM	Bam	29.09	58.35	4	Stiff soil	778.3	623.4
MOH	Mohamad-Abad	28.90	57.89	49	soil	115.9	66.8
ABA	Abaraq	29.34	57.94	52	rock	166.7	109.5
JIR	Jiroft	28.67	57.74	74	soil	40.2	27.6
RAY	Rayen	29.59	57.44	107	rock	14.6	13.9
GOL	Golbaf	29.88	57.72	111	soil	30.29	27.6
JOS	Joshan	30.12	57.60	132	rock	24.9	36.0
AND	Andoohjerd	30.23	57.75	147	soil	31.8	33.6



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2.8 g/cm<sup>3</sup>

[ ] 3.5 km/s

/

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R<sup>-1</sup>

R<sup>-1/2</sup>

[ ]

Q(f) = 291f<sup>0.6</sup> ( )

[ ]

) [ ]

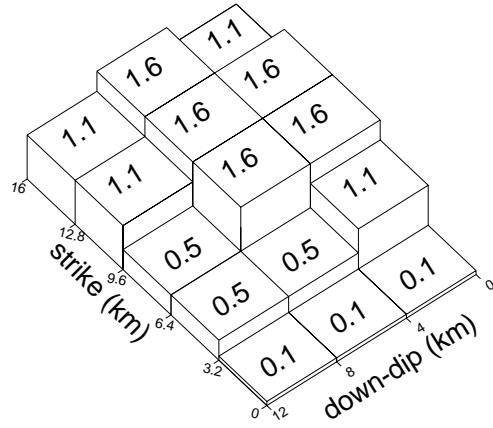
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$$E(f) = \frac{1}{n} \sum_{i=1}^n \log \left( \frac{PSA(f)_{obs}}{PSA(f)_{sim}} \right)_i$$

*sfact*

0.4-15 Hz

*sfact*=1.3

*sfact*

$PSA(f)_{obs}$  ( )  
 $(PSA(f)_{sim})$

( )

*sfact*=1.3

$$\varepsilon = \frac{1}{m} \sum_{j=1}^m E(f)_j$$

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*m*

0.4-15 Hz

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3.0 km/s

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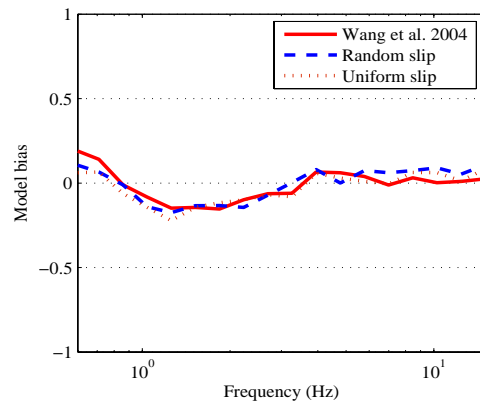
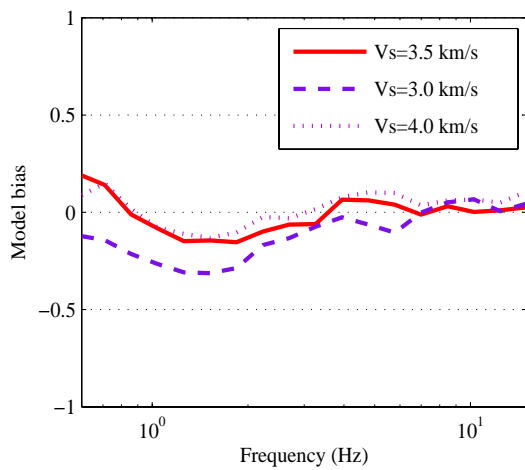
( )

4.0 km/s

( )

[ ]

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(700 cm/s/s)

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Vs (km/s)	PGA <sub>sim</sub> (cm/s/s)	Error%
3.0	593	16
3.5	652	7
4.0	492	30

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( $V_s = 4.0$  km/s)

( $V_s = 3.0$  km/s)

(3-4 km/s)

. [ ]  $V_s = 3.8$  km/s

. [ ]

( $f > 1$  Hz)

0.4-15 Hz

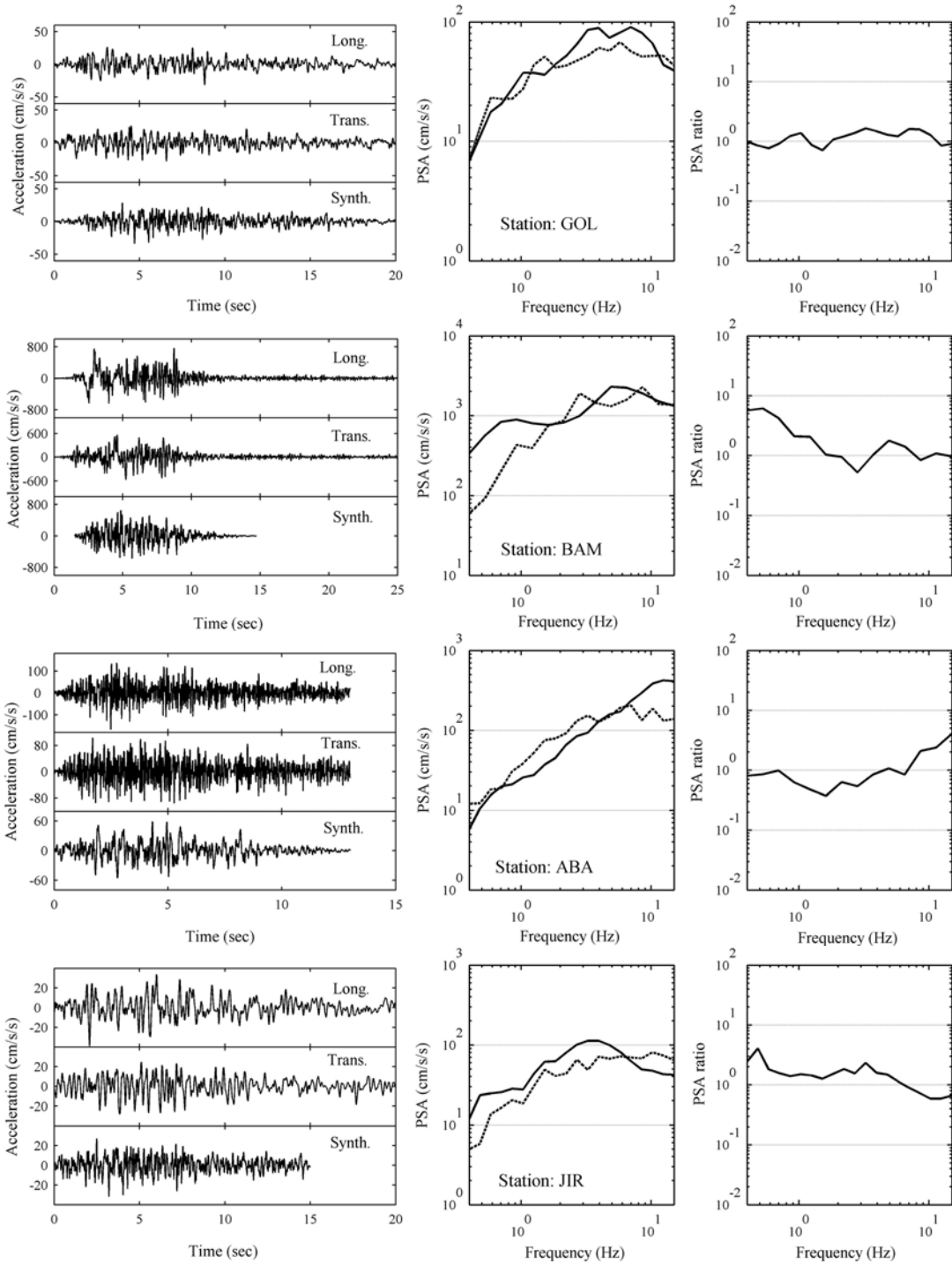
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Parameter	Parameter value
Fault orientation (strike/dip) (Degree)	357 / 80
Fault dimensions along strike and dip (km)	16, 12
Depth to the top of the Fault (km)	1.0
Mainshock moment magnitude ( $M_w$ )	6.5
Stress parameter (bars)	50
Subfault dimensions (km)	$3.2 \times 4$
Subfault corner frequency (Hz)	0.42
Crustal shear-wave velocity (km/s)	3.5
Rupture velocity (km/s)	$0.8 \times$ shear-wave velocity
Crustal density ( $g/cm^3$ )	2.8
Windowing function	Saragoni-Hart
Geometric spreading	$R^{-1}(R \leq 60 \text{ km}), R^{-1/2}(R > 60 \text{ km})$
Crustal amplification	Boore and Joyner, 1997

.sfact

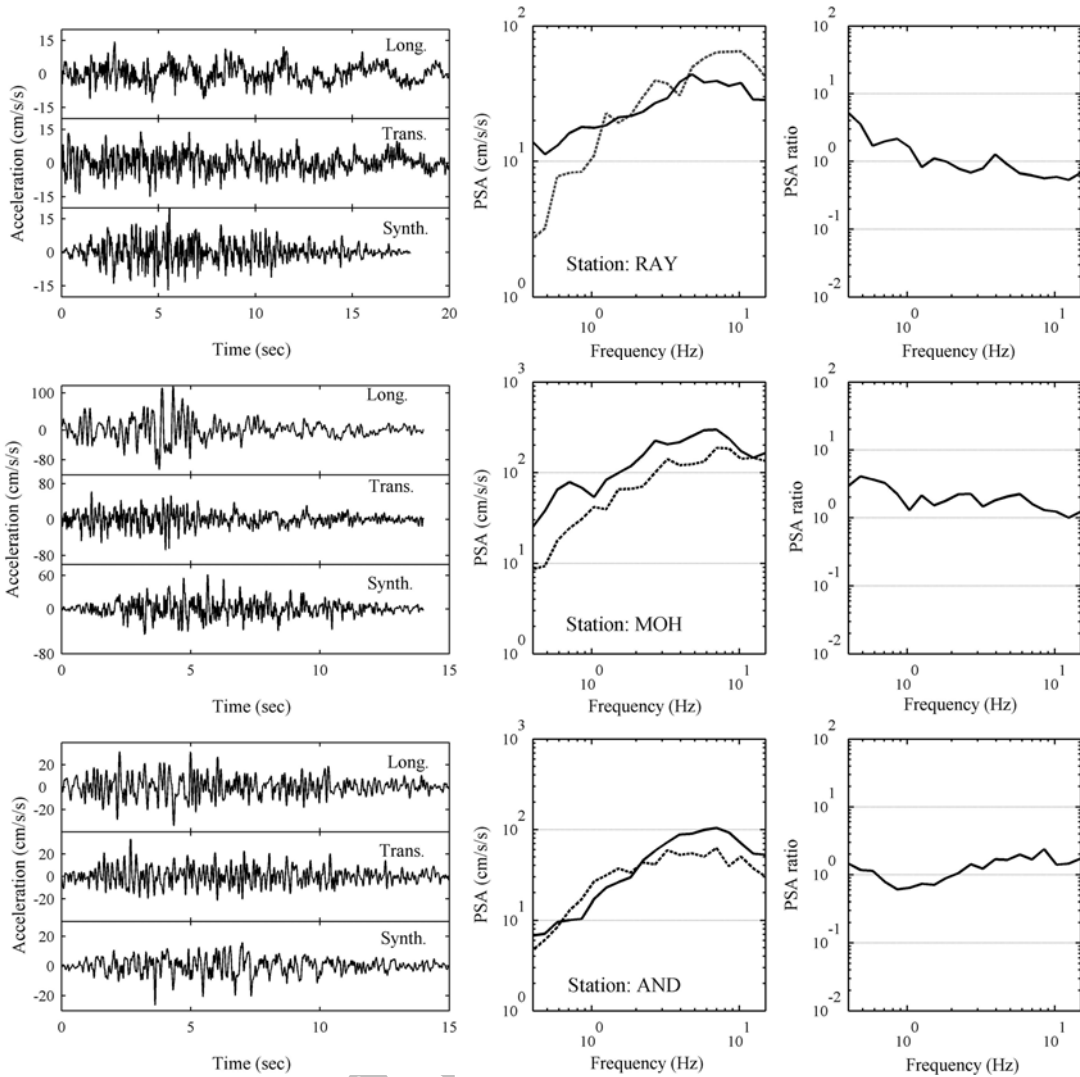
.sfact	Peak ground acceleration (cm/s/s)				
	BAM	MOH	JIR	AND	RAY
1.0	345.9	32.5	16.9	14.0	11.1
1.1	437.7	41.1	21.3	17.7	<b>14.0</b>
1.2	540.0	50.7	26.3	21.8	17.2
1.3	<b>652.6</b>	61.3	<b>31.6</b>	26.3	20.8
1.4	775.1	72.9	37.4	<b>31.2</b>	24.6
1.5	907.4	<b>85.5</b>	43.7	36.5	28.8
1.6	1049.4	99.0	50.4	42.1	32.2
1.7	1200.7	113.5	57.6	48.1	37.9
1.8	1361.2	128.8	65.2	54.4	42.9
1.9	1530.7	145.2	73.1	61.1	48.2
2.0	1708.9	162.3	81.5	68.1	53.7

Slip Distribution	Peak ground acceleration (cm/s/s)							
	BAM	ABA	MOH	GOL	JIR	JOS	AND	RAY
Wang et al.,2004	653	<b>59</b>	61	20	<b>31</b>	14	<b>26</b>	21
Uniform	<b>666</b>	57	<b>63</b>	<b>23</b>	30	<b>15</b>	22	20
Random	631	51	55	20	28	14	19	<b>17</b>



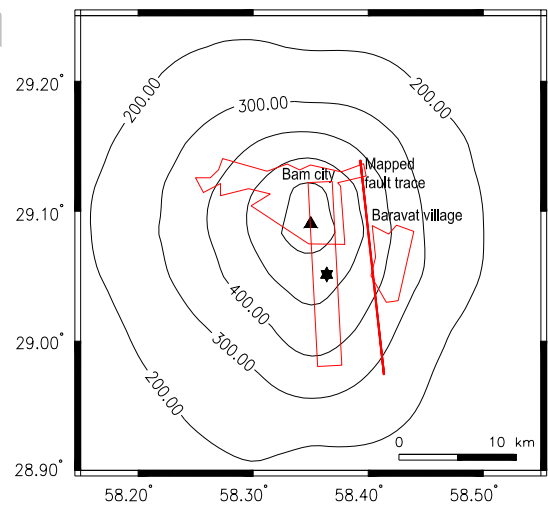
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( ) Vs ≤ 300 m/s ( \* )

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(PGA > 0.6g)

[ ]

(0.6g )

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- 1 - Stochastic finite-fault method  
2 - Point source  
3 - Asperity  
4 - Source  
5 - Directivity effect  
6 - Dynamic corner frequency  
7 - Path effect  
8 - Bias