

# Simulation

Version numbering for different simulation implementations used.

Version	Current version number (For Robin, will delete later)	Notes	SRF Gen	SRF LF dx /dy	AWP Code	LF Anelastic Para	LF V s30ref	V <sub>s</sub> , min	VM dx /dy /dz	LF Site Amp	HF sim code	SRF HF dx /dy	HF # of Rays	Stress Drop	Average rvfac	rvfac shal
<a href="#">gmsim_v10.1.1</a>		GP10 approach	genslip-v3.0	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	500m/s	500m/s	0.1km 0.2km 0.4km	CB08; empirical till T=2s, then linear decrease till 5s.	<a href="#">hb_high_binmod_v 5.4.5.f</a> ?	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v15.1.1</a>		GP15 approach	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	500m/s	500m/s	0.1km 0.2km 0.4km	Same as <a href="#">gmsim_v 10.1.1</a>	<a href="#">hb_high_binmod_v 5.4.5.f</a> ?	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v16.1.1</a>	16.1 - 400m 17.1 - 200m 18.1 - 100m	GP16 approach	genslip-v5.0.c	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	500m/s	500m/s	0.1km 0.2km 0.4km	CB14 ?; empirical till T=2s, then linear decrease till 5s.	<a href="#">hb_high_binmod_v 5.4.5.f</a> ?	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v17.5.1</a>	16.2 - 400m 17.2 - 200m 18.2 - 100m	<a href="#">gmsim_v1 6.1.1</a> with LF Vs30ref obtained from the 3DVM	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	Same as <a href="#">gmsim_v 16.1.1</a>	<a href="#">hb_high_binmod_v 5.4.5.f</a>	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v18.5.1</a>	16.3 - 400m 17.3 - 200m 18.3 - 100m	<a href="#">gmsim_v1 7.5.1</a> with modified path duration	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	Same as <a href="#">gmsim_v 16.1.1</a>	<a href="#">hb_high_binmod_v 5.4.5.f</a>	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v18.5.2</a>	16.4 - 400m 17.4 - 200m 18.4 - 100m	<a href="#">gmsim_v1 7.5.1</a> with modified long period site amp	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	None.	<a href="#">hb_high_binmod_v 5.4.5.f</a>	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v18.5.3</a>	16.5 - 400m 17.5 - 200m 18.5 - 100m	<a href="#">gmsim_v1 7.5.1</a> with modified path duration and long period site amp	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	None	<a href="#">hb_high_binmod_v 5.4.5.f</a>	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v18.5.4</a>		<a href="#">gmsim_v1 8.5.3</a> with subfault-level path duration capped at 81.92s	genslip-v3.3	0.1km	Emod3d V3.0.4	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	None	<a href="#">hb_high_binmod_v 5.4.5.2.f</a>	2km	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7
<a href="#">gmsim_v20.4.1</a>		<a href="#">gmsim_v1 8.5.4</a> with new genslip, emod3d, hb_high v5.4.5 fix for velocity boundary issue, target dx /dy for stoch, and full HF site amp dependent on transition freq.	genslip-v5.4.2	0.1km	Emod3d V3.0.8	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	None	<a href="#">hb_high_binmod_v 5.4.5.3.f</a>  (fixes velocity boundary issue with ray parameter)	2km with target dx /dy	1	Constant =5MPa	V <sub>r</sub> /V <sub>s</sub> = 0.8	0.7

gmsim_v20.X.1		gmsim_v1 8.5.4 with new genslip, emod3d and hb_high, and target dx/dy for stoch  <b>NOT VERIFIED OR USED</b>	genslip-v5.4.2	0.1km	Emod3d V3.0.8	Qs=50Vs; Qp=2Qs	From LF 3DVM	500m/s	0.1km 0.2km 0.4km	None	<a href="#">hb_high_v6.0.3.f</a>	2km with target dx/dy	1	Constant ≈5MPa	$V_r/V_s = 0.8$	0.6
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genslip-v5.2.3a.c 