

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 _s , min	VM dx /dy /dz	LF Site Amp	HF sim code	SRF HF dx /dy	HF # of Rays	Stress Drop	Average rvfac	rvfac shal
gmsim_v10.1.1		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.	hb_high_binmod_v5.4.5.f ?	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v15.1.1		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 gmsim_v10.1.1	hb_high_binmod_v5.4.5.f ?	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v16.1.1	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.	hb_high_binmod_v5.4.5.f ?	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v17.5.1	16.2 - 400m 17.2 - 200m 18.2 - 100m	gmsim_v16.1.1 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 gmsim_v16.1.1	hb_high_binmod_v5.4.5.f	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v18.5.1	16.3 - 400m 17.3 - 200m 18.3 - 100m	gmsim_v17.5.1 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 gmsim_v16.1.1	hb_high_binmod_v5.4.5.f	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v18.5.2	16.4 - 400m 17.4 - 200m 18.4 - 100m	gmsim_v17.5.1 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.	hb_high_binmod_v5.4.5.f	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v18.5.3	16.5 - 400m 17.5 - 200m 18.5 - 100m	gmsim_v17.5.1 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	hb_high_binmod_v5.4.5.f	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v18.5.4		gmsim_v18.5.3 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	hb_high_binmod_v5.4.5.2.f	2km	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7
gmsim_v20.4.1		gmsim_v18.5.4 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	hb_high_binmod_v5.4.5.3.f (fixes velocity boundary issue with ray parameter)	2km with target dx /dy	1	Constant =5MPa	$V_r/V_s = 0.8$	0.7

gmsim_v20.X.1		gmsim_v1 8.5.4 with new genslip, emod3d and hb_high, and target dx/dy for stoch NOT VERIFIED OR USED	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	hb_high_v6.0.3.f	2km with target dx/dy	1	Constant =5MPa	$V_f/V_s = 0.8$	0.6
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genslip-v5.2.3a.c [?](#)