

Erratum to International Benchmark on Numerical Simulations for 1D, Nonlinear Site Response (PRENOLIN): Verification Phase Based on Canonical Cases

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The authors want to underline an inconsistency in the Régnier *et al.* (2016) paper. The thicknesses of the soil layers of profile P3, used in the verification phase of the PRENOLIN project, are improperly described in some parts of the article. The true thicknesses of the first two layers in the soil profile are

illustrated in figure 2 of Régnier *et al.* (2016). The first layer has a thickness of 20 m and the second soil layer of 30 m. The corrected Figure 1 and Table 1 are included. Results in figure 15 of Régnier *et al.* (2016) that involve P3 results are unchanged.

Reference

Régnier, J., L.-F. Bonilla, P.-Y. Bard, E. Bertrand, F. Hollender, H. Kawase, D. Sicilia, P. Arduino, A. Amorosi, D. Asimaki, *et al.* (2016). International benchmark on numerical simulations for 1D, nonlinear site response (PRENOLIN): Verification phase based on canonical cases, *Bull. Seismol. Soc. Am.* **106**, no. 5, doi: [10.1785/0120150284](https://doi.org/10.1785/0120150284).

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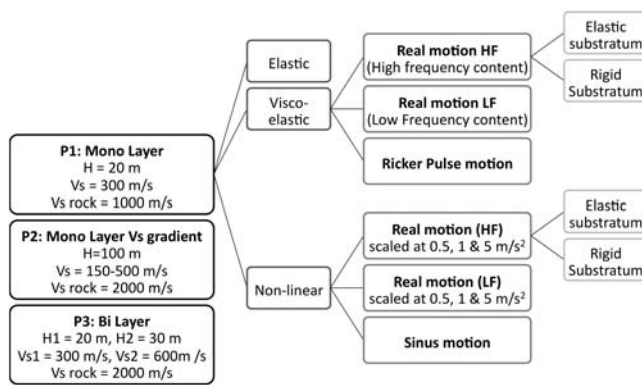


Figure 1. The three simple idealized profile cases studied here (P1–P3), for the elastic and nonelastic domains, and for a rigid and elastic soil–bedrock base, using a Ricker pulse and three accelerations of different peak ground acceleration (PGA) and frequency contents.

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Table 1

Soil Properties for All Three Simple Profile Cases Studied Here (P1–P3), for the Elastic and Nonelastic Domains

Profile	Z (m)	V_S (m/s)	V_P (m/s)	ρ (kg/m ³)	Linear					NL*
					Q Elastic	ξ_{\min} Elastic	Q Viscoelastic	ξ_{\min} Viscoelastic	f_0 Linear Elastic (Hz)	
P1	0–20	300	700	2000	5000	10^{-4}	30	0.0166	3.75	N°1-P1
	-	1000	1900	2500			200	0.0025		-
P2 mono-layer + V_{gradient}	0–20	150-500	360-1220	2000			34	0.01547	1.16	N°1-P2
	20–40						40	0.0250		N°2-P2
	40–60						44	0.0113		N°3-P2
	60–80						47	0.0106		N°4-P2
	80–100						49	0.0102		N°5-P2
P3 bi-layer	-	2000	3700	2500			200	0.0025	-	
	0–20	300	700	2000			30	0.0166	1.48	N°1-P3
	20–50	600	1500	2000			60	0.0083		N°2-P3
-	2000	3700	2500			200	0.0025	-		

Z , depth of the soil layer; V_S , shear-wave velocity; V_P , compressional wave velocity; ρ , density; Q , quality factor; ξ_{\min} , elastic damping; f_0 , fundamental resonance frequency.

*Describe the G/G_{\max} and damping curves used for each soil layer; NL, nonlinear.

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