

IM	Description	Units	Definition
PGA	Peak ground acceleration	g	$PGA = \max \ddot{u}_g(t) $
PGV	Peak ground velocity	cm s^{-1}	$PGV = \max \dot{u}_g(t) $
$S_{a-0.2s}$	Spectral acceleration at 0.2 s	g	$S_a(T_i) = w_i^2 S_d(T_i)$
$S_{a-1.0s}$	Spectral acceleration at 1 s	g	$S_a(T_i) = w_i^2 S_d(T_i)$
I_A	Area intensity	cm s^{-1}	$I_A = \frac{\pi}{2g} \int_0^{T_d} [\ddot{u}_g(t)]^2 dt$
I_V	Velocity intensity	cm	$I_V = \frac{1}{PGV} \int_0^{T_d} [\dot{u}_g]^2 dt$
CAV	Cumulative absolute velocity	cm s^{-1}	$CAV = \int_0^{T_d} \ddot{u}_g(t) dt$
CAD	Cumulative absolute displacement	cm	$CAD = \int_0^{T_d} \dot{u}_g(t) dt$
ASI	Acceleration spectrum intensity	cm s^{-1}	$ASI = \int_{T_i}^{T_f} SA(T, \xi) dT$