climada additional module eq_global 20141017
consider climada module GDP_entity to generate the centroids for the earthquake model

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This module implements a raw global earthquake model, see other files in docs for details.

eq_centennial_read reads the centennial database (see docs/centennial.pdf)
eq_signigeq_read reads the signigeq database (see header for details)
eq_global_probabilistic creates the probabilistic epicenters (see header for details)
eq_global_hazard_set creates the climada hazard event set and calls eq_global_attenuation for each event (see also docs/Po-Shen Lin and Chyi-Tyi Lee, 2008)

all-in-one, you can run the module as:
hazard=
eq_global_hazard_set(eq_global_probabilistic(eq_centennial_read,99,0))

Please consider GDP_entity to generate the centroids and basic assets data in order to run the earthquake module.

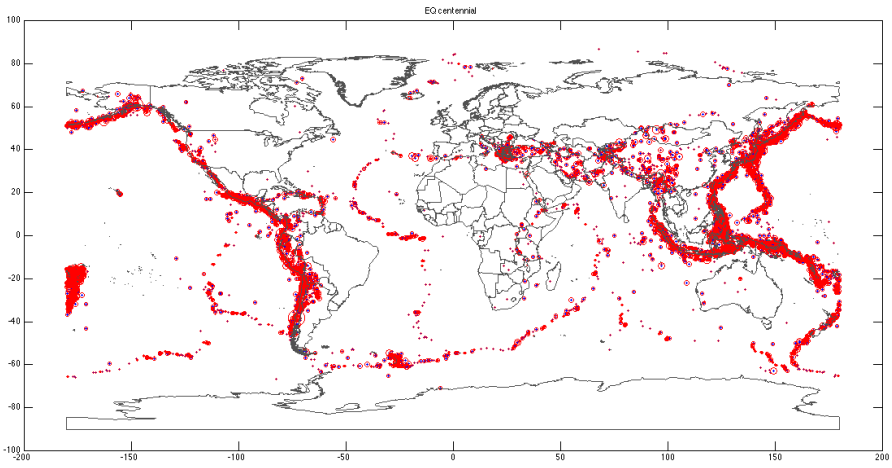

Figure: centennial database, epicenter overview. Figure created with the command eq_data=eq_centennial_read('',1)

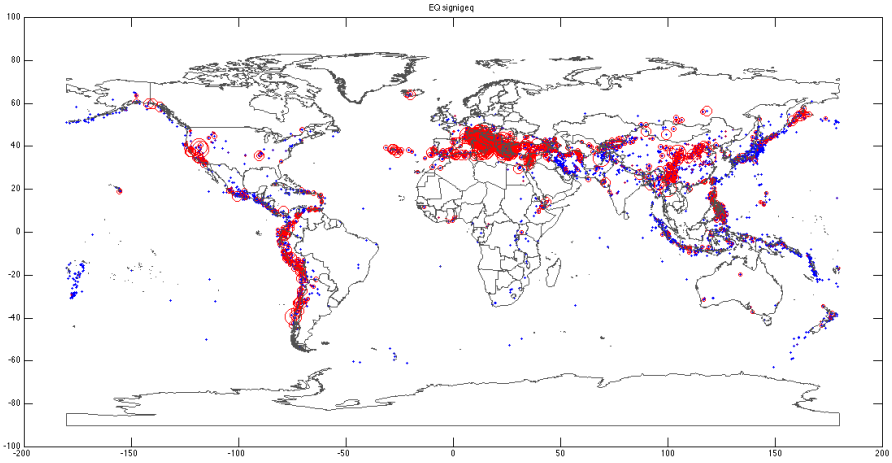

Figure: signigeq database, epicenter overview. Figure created with the command eq_data=eq_signigeq_read('',1)

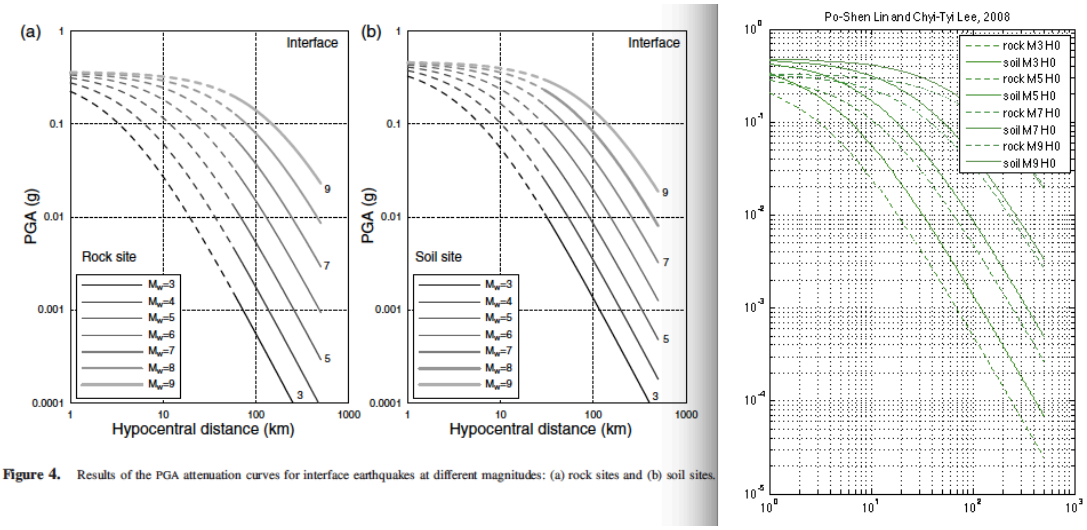

Figure 4. Results of the PGA attenuation curves for interface earthquakes at different magnitudes: (a) rock sites and (b) soil sites.

Figure: the attenuation function currently used, left the publication (Po-Shen Lin and Chyi-Tyi Lee, 2008), right the climada eq_global module implementation (the user can in fact specify what he wants, see code eq_global_attenuation)