

## Soil-invariant seismic hazard and disaggregation

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Results of probabilistic seismic hazard analysis (PSHA) depend on the soil conditions of the site investigated. Consequently, it is generally expected that disaggregation, usually employed to gather further information about hazard levels of interest, changes with the soil class. The discussed study addresses the relationship between hazard curves and disaggregations computed for different soil conditions at the same site. In particular, it is analytically proven that there are cases, depending on the structure of the ground motion prediction equations employed, in which disaggregations for different soil conditions are necessarily invariant. It is also demonstrated that, in these situations, hazard curves for different soil conditions can be immediately obtained from a curve developed for a reference soil class.