Use the left mouse button to zoom the images and to to better appreciate the results. Click on each symbol for detail about PGV, residual, station-code and epicentral distance.

Peak Ground Velocity (PGV)
Comparison between the recorded (observed) and the predicted data

Left panels: results for the geometric mean of the two horizontal components of ground motion (NS and EW); **Right panels**: results for the vertical component of ground motion (Z).
Top panels: *observed data* (squares) are represented with different colors in relation to the soil category of the recording site (black: A soil category of NTC18/EC8 codes; blue: B soil category of NTC18/EC8 codes; red: C soil category of NTC18/EC8 codes; gray: D soil category of NTC18/EC8 codes; green: E soil category of NTC18/EC8 codes). *Predicted data*: solid and dotted lines - indicated with the corresponding colors used for observed data - represent the median predictions and the related standard deviation (±σ) calibrated for the Italian territory by Bindi et al. (2011).
Bottom panels: corresponding residuals calculated as the difference between the logarithm to the base 10 of the observed data and the logarithm to the base 10 of the predicted ones. The colors have the same meaning described for the top panels. In case of positive residuals the predicted models underestimate the recorded data, in case of negative residuals the predicted models overestimate the recorded data.

Possible bias:

1) the predicted values do not consider the contribution of the style of faulting;
2) the predicted values do not consider the Joyner and Boore distance (see Bindi et al., 2011 for details), but only the epicentral distance;
3) the predicted values are calculated considering the first available magnitude from INGV-ONT (ML or Mw) and not necessarily the Mw, used by Bindi et al. (2011) to calibrate the models.

References

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