



Kandilli Observatory and Earthquake Research Institute Department of Earthquake Engineering

Bogazici University

## 24 Sept. 2019 (11:00) Istanbul-Off Silivri Earthquake

## Istanbul Earthquake Rapid Response System

Preliminary Estimations for the Strong Ground Motion Parameters



Department of Earthquake Engineering



Magnitude	<b>:</b> M <sub>L</sub> =4.7
Epicenter	<b>:</b> 40.8785 – 28.2090
Depth	<b>:</b> 9.8 km

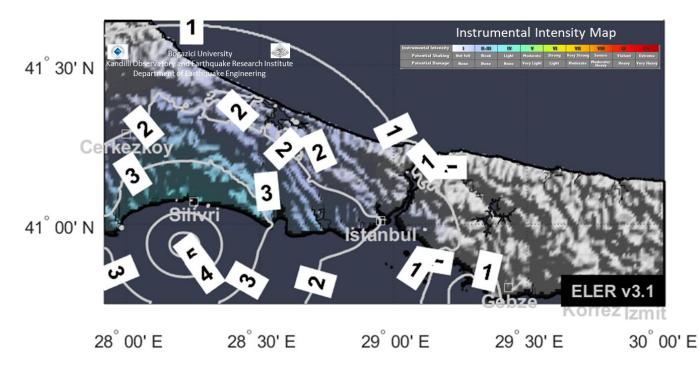


Figure 1. Instrumental Intensity Distribution





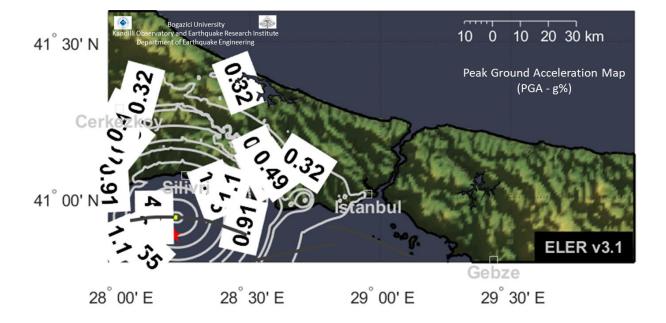


Figure 2. Peak Ground Acceleration (PGA – g%)

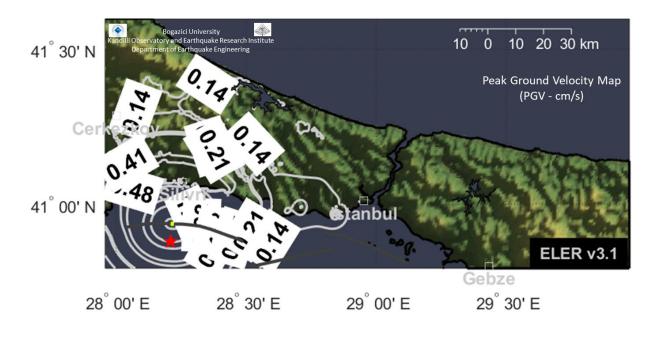


Figure 3. Peak Ground Velocity (PGV – cm/s)

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10 0 10 20 30 km 41<sup>°</sup> 30' N Spectral Acceleration (T=0.2s) Map (Sa(0.2s) - g%)  $41^{\circ}$  00' N ELER v3.1 Gebze 28<sup>°</sup> 30' E 29<sup>°</sup> 00' E 29<sup>°</sup> 30' E 28<sup>°</sup> 00' E **Figure 4.** Spectral Acceleration @T=0.2 s (Sa(0.2) - g%)41<sup>°</sup> 30' N 10 0 10 20 30 km Spectral Acceleration (T=1.0s) Map (Sa(1.0s) - g%) ak16 Cer 0.13<sup>0.16</sup> 41<sup>°</sup> 00' N ELER v3.1 Gebze

**Figure 5.** Spectral Acceleration @T=1.0 s (Sa(1.0) – g%)

 $28^{\circ} 30' E$ 

28<sup>°</sup> 00' E

29<sup>°</sup> 00' E

Istanbul Earthquake Rapid Response System 24 Sept. 2019 (11:00) Istanbul-Off Silivri Earthquake 29<sup>°</sup> 30' E