



## **Experimental laboratory to generate synthetic seismicity catalogues. Preliminary results**

Alejandro Ramírez-Rojas (1), Lucía Rebeca Moreno-Torres (2), Luciano Telesca (3), and Carlos Alejandro Vargas (1)

(1) Universidad Autónoma Metropolitana, Ciencias Básicas, México D.F., Mexico (arr@correo.azc.uam.mx), (2) ESFM, Departamento de Física, Instituto Politécnico Nacional, México, (3) IMMA-CNR, Potenza Italia

Understanding the mechanisms of generation of earthquakes is of great interest due to scientific, societal and economic impacts especially large earthquakes could have.

Stick-slip has been recognized as the general mechanism underlying earthquake generation.

In order to better understand the time dynamics of seismicity, we set up an experimental laboratory for the generation of stick-slip events mimicking real earthquakes. The events generated in our laboratory are produced by the interaction between two rough surfaces, which simulate the interaction between the planes of a tectonic fault. In this paper we show our experimental laboratory and present the preliminary statistical analyses performed on the series of recorded stick-slip events