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## Kinematic and tectonic analysis of the Baza and Galera Fault (S Spain). Insights from GNSS data

**Frank García-Tortosa**<sup>1</sup>, Pedro Alfaro<sup>2</sup>, Alberto Sánchez-Alzola<sup>3</sup>, Ivan Martin-Rojas<sup>2</sup>, Jesus Galindo-Zaldívar<sup>4</sup>, Manuel Avilés<sup>5</sup>, Angel Carlos López Garrido<sup>6</sup>, Carlos Sanz de Galdeano<sup>6</sup>, Patricia Ruano<sup>4</sup>, Francisco Jose Martínez-Moreno<sup>4</sup>, Antonio Pedrera<sup>7</sup>, Maria Clara de Lacy<sup>5</sup>, Maria Jesus Borque<sup>5</sup>, Ivan Medina-Cascales<sup>2</sup>, and Antonio Jose Gil<sup>5</sup>

<sup>1</sup>Departamento de Geología, Facultad de Ciencias, Universidad de Jaén, 23071 Jaén, Spain

<sup>2</sup>Departamento de Ciencias de la Tierra y del Medio Ambiente, Facultad de Ciencias, Universidad de Alicante, 03080 Alicante, Spain

<sup>3</sup>Departamento de Estadística e Investigación Operativa, Universidad de Cádiz, 11510 - Puerto Real, Spain

<sup>4</sup>Departamento de Geodinámica, Facultad de Ciencias, Universidad de Granada, 18071, Granada, Spain

<sup>5</sup>Departamento de Ingeniería Cartográfica, Geodésica y Fotogrametría, Universidad de Jaén, Campus de las Lagunillas, 23071 Jaén, Spain

<sup>6</sup>Instituto Andaluz de Ciencias de la Tierra (CSIC-Univ. de Granada), 18071 Granada, Spain

<sup>7</sup>Instituto Geológico y Minero de España, Ríos Rosas, 23, 28760 Madrid, Spain

We here discuss the results of a local GNSS episodic network from the Baza sub-Basin (S Spain). This network including six sites, was established in 2008 and has been measured seven times since then. Our data permit us to present the first short-term slip rates for the two active faults in this area. The main active structure is the normal Baza Fault. We estimate slip rates for this fault ranging between  $0.3 \pm 0.3$  mm/yr and  $1.3 \pm 0.4$  mm/yr. For the strike-slip Galera Fault, we quantify the slip rate as  $0.5 \pm 0.3$  mm/yr. These values are higher than previously reported long-term slip rates. We postulate that the discrepancy for the Baza Fault between short-term and long-term slip rates could indicate that the fault is presently in a period with a displacement rate higher than the mean of the magnitude 6 seismic cycle. Moreover, the velocity vectors that we obtained also show the regional tectonic significance of the Baza Fault, as this structure accommodates one-third of the regional extension of the Central Betic Cordillera.

Our results also show that the Baza and Galera Faults are kinematically coherent and they divide the Baza sub-Basin into two tectonic blocks. This points to a likely physical link between the Baza and Galera Faults; hence, a potential complex rupture involving both faults should be considered in future seismic hazard assessment studies.