



## **Continuous Gravity Monitoring in South America with Superconducting and Absolute Gravimeters: More than 12 years time series at station TIGO/Concepcion (Chile)**

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As part of the Transportable Integrated Geodetic Observatory (TIGO) of BKG, the superconducting gravimeter SG 038 was set up in December 2002 at station Concepcion / Chile to record temporal gravity variations with highest precision. Since May 2006 the time series was supported by weekly observations with the absolute gravimeter FG5-227, proving the large seasonal variations of up to 30  $\mu\text{Gal}$  and establishing a gravity reference station in South America. With the move of the whole observatory to the new location near to La Plata / Argentina the series was terminated.

Results of almost continuously monitoring gravity variations for more than 12 years are presented. Seasonal variations are interpreted with respect of global and local water storage changes and the impact of the 8.8 Maule Earthquake in February 2010 is discussed.