



## **Seismic excitation of the polar motion over the last fifty years.**

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We compute the theoretical effect of the Earthquakes on polar motion from the sixties to nowadays by using Haward CMT and U.S. Geological Survey seismic Data Base. Although rather unpredictable in the period ranging from 1965 to 1994, from 1994 the seismic excitation would have produced a trend on polar motion about 0.2 milliarcsecond / year. This study is focused on the big Sumatra earthquake of December 26 2004 : it would have caused a polar shift below 3 cm in a few minutes. Nevertheless the polar motion observation cannot discriminate such a shift from "normal" continuous polar motion induced by atmosphere and oceans.