



## **Numerical modeling of landslide tsunami in Black sea**

### **1 N.M. Samarina, A.A. Kurkin and A.I. Zaitsev**

Nizhny Novgorod State Technical University, Russia ([klmnat@yandex.ru](mailto:klmnat@yandex.ru))

According to the historical data, in the Black sea in area of Sochi (Russia) December 4, 1970 was not registered of any seismic activity however, fluctuations of the sea with height 80 cm and period 5 minutes were observed. Taking into account, that this part of coast of the Black sea is slide dangerous, it is naturally to assume that the reason of this weak tsunami could serve the underwater landslide. Because detail information for this event is unknown, as a first step we considere the landslide source with typical parameters. The numerical modeling of this event was carried out within the framework of the nonlinear theory of shallow water. For modeling two-minute bathymetry of the Black sea (GEBCO Digital Atlas, British Oceanographic Data Centre) is used. Volume of the landslide, chosen in 229.5 million of cubic meters. The influence of landslide parameters on amplitude of generated by it tsunami is investigated also.