



## Numerical simulation of storm surges in Guadeloupe (Caribbean Sea)

Irina Nikolkina (1,2)

(1) Institute of Applied Physics, Nizhny Novgorod, Russian Federation, (2) University of Antilles, Pointe-a-Pitre, Guadeloupe, France (irina.nikolkina@gmail.com)

Cyclone activity is analyzed for period 1635–2009 for Guadeloupe, Caribbean Sea. Numerical modeling of waves generated by hurricane Lili on 23–24 September 2002 is performed in the framework of shallow-water equations. Surge heights are computed for several locations in Guadeloupe. Obtained results may be applied to analyze the risk assessment of storm surges in the region.