

MICROSEISMS NOISE ANALYSIS PROVIDED PREDICTION OF JAPAN EARTHQUAKE OF 11 MARCH, 2011

A.A. Lyubushin

Schmidt Institute of Physics of the Earth, Russian Academy of Sciences, Moscow, Russia

Abstract. The data analysis of microseisms noise from broadband seismic network F-net allowed to formulate in 2008 a hypothesis that Japanese islands were approaching to a larger seismic catastrophe. The base for such a hypothesis was statistically significant decreasing of multi-fractal singularity spectrum support width mean value. Further on as far as the new information from monitoring system became available new results confirming increasing of microseisms synchronization were obtained. The cluster analysis of microseisms noise parameters allowed us to make a decision that starting from July of 2010 Japan islands comes to the state of impending strong earthquake. Estimate of spatial distribution of multi-fractal singularity spectrum support width allows to give the region of catastrophe.

Keywords: synchronization, microseismic noise, earthquake precursors.