

Is it possible to predict earthquakes? - There are reasons to believe

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This report is dedicated to our friend and colleague Oleg Molchanov who passed away last year. During his last years the problem of earthquake forecast was the most important for Oleg and new approaches were developed and several interesting results were got under his leadership. Here we present only two of them, probably the most interesting and statistically significant. These seismo-electromagnetic effects due to their properties can be used for short-term earthquake prediction. The first one is the depression of the ULF magnetic field fluctuations 1-7 days before earthquakes. Contrary, the second effect is an additional emission in the atmosphere during the same time interval in the frequency range 1-50 Hz. The efficiency of both methods for the EQ forecast is verified at numerous earthquakes at Japan, Kuril Islands and Kamchatka. We also describe the measurement technique, the procedure for finding the precursors, and the methods of data processing.