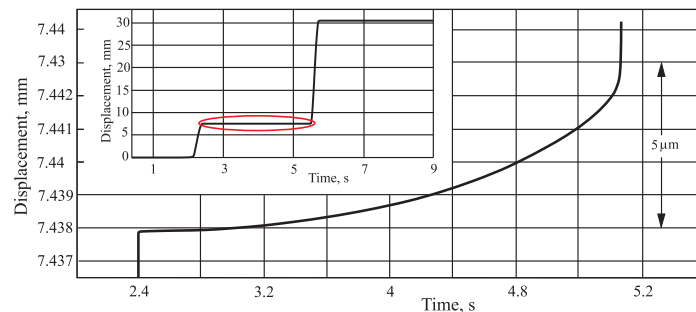




## German-Russian Workshop Precursors of tribological instabilities and earthquakes prediction

Berlin University of Technology

01. - 04. November 2010



### Organization & contact

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## Program

### November 1st

15:00 - 16:00 Registration

16.00 – 17.00 Round Table

### November 2nd

8:30 - 9:00 Registration

9:00 - 9:10 Opening: *Popov V.L.*

*Chair: Rosenau M.*

9:10 - 9:30

Popov V.L.

**Earthquakes and friction**

*Institute of Mechanics, TU Berlin, Germany*

9:30 - 10:10

Grzemba B., Popov V., Starcevic J., Dmitriev A., Shilko E., Cagtay F.

**Accelerating creep as a precursor of stick-slip-instabilities and the problem of prediction of earthquakes**

*Institute of Mechanics, TU Berlin, Germany*

10:10 - 10:30

*coffee break*

*Chair: Popov V.L.*

10:30 - 11:10

Rosenau M., Oncken O.

**Earthquake potential of creeping faults: Inferences from laboratory-scale fault models**

*Deutsches GeoForschungsZentrum, Potsdam, Germany*

11:10 - 11:50

Dresen G.

**Earthquake nucleation and propagation - a laboratory perspective**

*Deutsches GeoForschungsZentrum, Potsdam, Germany*

11:50-12:00

photo

12:00 - 13:30

*lunch*

*Chair: Kocharyan G.*

13:30 – 14:10

Miller S.

**Identification of the high pressure fluid source driving the L'aquila earthquake sequence**

*Geodynamics, University of Bonn, Germany*

14:10 – 14:50

Hatano T., Narteau C., Shebalin P.

**Avalanche statistics in athermal particulate systems under shear**

*University of Tokyo, Japan*

14:50 – 15:30

Zschau J.

**Earthquake Early Warning Systems**

*Deutsches GeoForschungsZentrum, Potsdam, Germany*

15:30 – 15:50

*coffee break*

*Chair: Miller S.*

15:50 – 16:30

Kocharyan G.G., Pavlov D.V.

**Instability Triggering due to Low Amplitude Seismic Loads**

*Institute for Dynamics of Geospheres, Russian Academy of Sciences Moscow, Russia*

16:30 - 17:10

Okunev V., Zeigarnik V., Novikov V., Klyuchkin V.

**Stick-Slip Behavior of Simulated Fault Gouge Under Electromagnetic and Dynamic Impacts at the Spring-Block Facility**

*Institute for Dynamics of Geospheres, Russian Academy of Sciences Moscow, Russia*

17:10 - 17:50

Psakhie S., Dobretsov N.L., Ruzhich V.V., Popov V.L., Shil'ko E.V., Granin N.G., Timofeev V.Yu., Astafurov S.V., Dimaki A.V., Starchevich Ya.

**Ice cover of Lake Baikal as a model for studying tectonic processes in the Earth's crust**

*Institute of Strength Physics and Material Science, Russian Academy of Sciences Tomsk, Russia*

## November 3rd

8:30 - 9:00	Registration <i>Chair:Filippov A.</i>
9:00 - 9:40	<u>Sobolev S.V.</u> <b>Role of geological time-scale friction softening in plate tectonics</b> <i>Deutsches GeoForschungsZentrum, Potsdam, Germany</i>
9:40 - 10:20	<u>Filippov A.E.</u> , Popov V.L., Psakhie S.G. <b>Correlated impacts vs. dynamic chaos, or provoking of the earthquakes instead of their prediction</b> <i>Donetsk, National Academy of Sciences of Ukraine</i>
10:20 - 10:40	<i>coffee break</i> <i>Chair: Sobolev S.V..</i>
10:40 - 11:20	<u>Dimaki A.</u> , Shilko E.V., Astafurov S.V., Psakhie S.G. <b>Experimental study of seismic noise on the ice cover of Baikal Lake, the interconnection between seismic noises and dynamic motions of ice plates</b> <i>Institute of Strength Physics and Material Science, Russian Academy of Sciences Tomsk, Russia</i>
11:20 - 12:00	<u>Shalapko Yu.</u> <b>Instability of the nominally fixed frictional contact - the identification of the dynamic stick-slip regime</b> <i>National Academy of Sciences of Ukraine</i>
12:00 - 12:40	<u>Vysotsky. E.</u> <b>Geological setting of the 2003 Ms=7.5 Chuya earthquake and co-seismic deformations, Gorny Altai</b> <i>Russian Academy of Sciences, Novosibirsk, Russia</i>
12:40 - 12:50	Closing
12:50 - 14:30	<i>lunch</i>
14:30 - 15:30	Guided tour through the Institute of Mechanics