



German-Russian Workshop
Earthquakes and Friction Physics

Technische Universität Berlin
October 8-10, 2008

Location

The Workshop will take place at the TU Berlin, building MS, room MS 107, Einsteinufer 5, D-10587 Berlin (see attached campus plan of the Berlin Technical University).

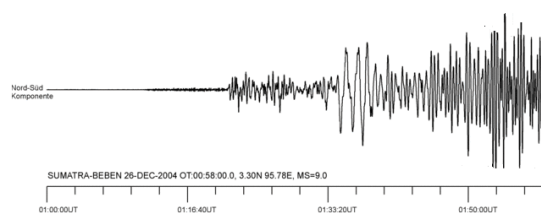
Organizers

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www.reibungsphysik.de



Preliminary Program

8. October

15:00 - 16:00 Registration (Building MS)

16:00 - 18:00 Round table

9. October

8:00 - 8:50 Registration (Building MS)

8:50 - 9:00 opening: Popov V.L.

Chair: Filippov A.E.

9:00 - 9:20

Popov V.L.

“Earthquakes” statistics in a simple tribological model

Institute of Mechanics, TU Berlin, Germany

9:20 - 10:00

Hainzl¹ S., Enescu¹ B., Cocco² M., Woessner³ J.

Aftershock occurrence as an indicator for rate-and-state dependent frictional response of fault systems

¹*Deutsches GeoForschungsZentrum, Potsdam, Germany*

²*INGV, Rome, Italy*

³*ETH Zurich, Switzerland*

10:00 - 10:40

Rubinstein¹ S.M., Cohen¹ G., Reches² Z., Fineberg¹ J.

Slip sequences in laboratory experiments; analogues to earthquakes associated with a fault edge

¹*The Racah Institute of Physics, The Hebrew University of Jerusalem, Israel*

²*School of University of Geology and Geophysics, University of Oklahoma, USA*

10:40 - 11:00

coffee break

Chair: Miller S.A..

11:00 - 11:40

Zöller G.

Quasidynamic simulations of long deformation histories on a heterogeneous fault

Institute of Physics (Nonlinear Dynamics Group), University of Potsdam, Germany

11:40 – 12:20

Oparin V.N.

Energy condition for the formation of central zones of earthquakes and mine shocks

Institute of Mining, Russian Academy of Sciences, Novosibirsk, Russia

12:20 - 14:20

lunch

Chair: Zöller G.

14:20 - 15:00

Miller S.A.

Fluids and Faulting

Geodynamics, University of Bonn, Germany

15:00 - 15:40

Goldstein R. V., Osipenko N.M.

Structures of fracture in active faults

Institute for Problems in Mechanics of the Russian Academy of Sciences, Moscow, Russia

15:40 - 16:00

coffee break

	<i>Chair: Oparin V.N.</i>
16:00 - 16:40	<u>Sibiryakov B.P.</u> , Prilous B.I. Static, dynamic and chaotic behaviour of structured bodies <i>Institute of petroleum Geology and Geophysics, Russian Academy of Sciences, Novosibirsk, Russia</i>
16:40 - 17:20	Kocharyan G.G. Block motion induced by underground explosion <i>Institute for Dynamics of Geospheres, Russian Academy of Sciences Moscow, Russia</i>
17:20 - 18:00	Sherman S.I. Variation and origin of seismic activity of Central Asia faults in real time <i>Institute of the Earth's Crust, Siberian Branch of Russian Academy of Sciences, Irkutsk, Russia</i>

10. October

	<i>Chair: Miller S.</i>
9:00 - 9:40	Sobolev S.V. Friction at plate boundaries at geological time scale: insight from geodynamic modeling <i>Deutsches GeoForschungsZentrum, Potsdam, Germany</i>
9:40 - 10:20	Popov ¹ V.L., Psakhie ² S.G. and <u>Filippov³ A.E.</u> Correlated impacts and converting of displacement dynamics into creep in block media ¹ <i>Institute of Mechanics, TU Berlin, Germany</i> ² <i>Institute of Strength Physics and Material Science, Russian Academy of Sciences, Tomsk, Russia</i> ³ <i>Donetsk, National Academy of Sciences of Ukraine</i>
10:20 - 11:00	Kwiatek G, Inga M, Bohnhoff M, Dresen G, Schulze A, Schulte T, Zimmermann G, Huenges E. Microseismicity induced by stimulation treatments at Geothermal Research Well in Groß Schönebeck: stress field, tectonics and potential fault activity <i>Deutsches GeoForschungsZentrum, Potsdam, Germany</i>

11:00 - 11:20 *coffee break*

	<i>Chair :Kwiatek G.</i>
11:20 - 12:00	Rudtskaya Ye. R. Usage the results of basic research on geophysics, geochemistry and mining. The RFBR experience <i>Russian foundation for basic research</i>
12:00 - 12:40	Oparin V.N. Effect of anomalously low friction in block geomeia <i>Institute of Mining, Russian Academy of Sciences, Novosibirsk, Russia</i>

12:40 - 14:30 *lunch*

	<i>Chair: Zschau J.</i>
14:30 - 15:10	<u>Shilko E.V.</u> , Astafurov S.V., Psakhie S.G. The approach for estimating local stresses in block boundaries (interfaces) in block-structured geological medium on basis of interface response to dynamic loading <i>Institute of Strength Physics and Material Science, Russian Academy of Sciences, Tomsk, Russia</i>

15:10 - 15:50 Psakhie¹ S.G., Shilko¹ E.V., Astafurov¹ A.V., Dimaki¹ A.V., Ruzhich² V.V., Granin³ N.G.
Study of the formation and development of deformation-induced structures in plate media by the example of the Baikal Lake ice cover
¹*Institute of Strength Physics and Material Science, Russian Academy of Sciences, Tomsk, Russia*
²*Institute of the Earth Crust, Russian Academy of Sciences, Irkutsk, Russia*
³*Limnological Institute, Russian Academy of Sciences, Irkutsk, Russia*

15:50 - 16:10 coffee break

Chair: Psakhie S.G.

16:10 - 16:50 Ruzhich V.V.
On a research method for tribochemical processes in earthquake foci
Institute of the Earth Crust, Russian Academy of Sciences, Irkutsk, Russia

16:50 - 17:00 Closing

18:30 Dinner