Program of Russia-Japan Workshop

"Mathematical analysis of fracture phenomena for elastic structures and its applications"

November 11 - 13, 2019

Organizers:
Novosibirsk State University,
Lavrentyev Institute of Hydrodynamics of SB RAS

Novosibirsk, 2019

Monday, 11.11.2019, NSU, room 212 (University Administration Building)

09:30-10:00	Registration
10:00-10:10	Opening
10:10-10:40	**Hiromichi Itou** On some problems for fracture phenomena
10:40-11:00	Coffee break
11:00-11:30	**Viktor Shcherbakov** A cohesive crack model for plates
11:30-12:00	**Hiroshi Takase** Uniqueness and stability for inverse hyperbolic problems by an internal observation
12:00-12:30	**Kiyoshi Mochizuki** Smoothing and Strichartz estimates to perturbed Klein-Gordon equations in exterior domain
12:30-14:00	Lunch break
14:00-14:30	**Natalia Fedorova, Mikhail Legan** The problem of the formation of annular cracks in the glass half-space upon contact with the ball, taking into account real experimental conditions
14:30-15:00	**Evgeny Rudoy** Asymptotic modelling of soft and stiff interfaces in Kirchhoff-Love plate theory
15:00-15:20	Coffee break
15:20-15:50	**Pavel Radchenko, Andrey Radchenko, Stanislav Batuev** Modeling destruction of monolithic and spaced barriers from anisotropic materials
15:50-16:20	**Stanislav Batuev, Pavel Radchenko, Andrey Radchenko** Numerical simulation of deformation and fracture of concrete and fiber concrete structures with metal and non-metal reinforcement under pulse loading
16:20-16:50	**Igor Trushin** Inverse Scattering Problems on Metric Graphs

Tuesday, 12.11.2019, NSU, room 212 (University Administration Building)

10:00-10:30	**Alexander Khludnev** Inverse problems for elastic bodies with thin inclusions
10:30-11:00	**Tatiana Popova** Junction problem for Timoshenko and semirigid inclusions embedded in elastic body
11:00-11:20	Coffee break
11:20-11:50	**Irina Fankina** On an equilibrium problem for a two-layer structure with the upper layer covering a defect tip
11:50-12:20	**Shiro Hirano** Dynamic growth of a self-similar anti-plane crack during earthquakes

12:20-12:50	**Nyurgun Lazarev, Galina Semenova** On the connection between two equilibrium problems for cracked two-dimensional bodies in the cases of thin and volume rigid inclusions
12:50-14:30	Lunch break
14:30-17:00	
17:30-22:00	Banquet

Wednesday, 13.11.2019, NSU, room 212 (University Administration Building)

10:00-10:30	**Takahito Kashiwabara** Remarks on the regularity of non-stationary slip boundary value problems of friction type
10:30-11:00	**Alexey Furtsev** On unilateral contact between a Timoshenko plate and a thin elastic obstacle
11:00-11:20	Coffee break
11:20-11:50	**Valerii Blinov** Hydraulic fracturing of perforated concrete cylinders in a non-uniform stress field
11:50-12:20	**Evdokia Pyatkina** A contact of two elastic plates containing thin rigid inclusions
12:20-14:00	Lunch break
14:00-14:30	**Ryuhei Yamaguchi, Nadia Shaffi, Simon Tupin, Shiddiq Hashuro, Kahar Osman, Gaku Tanaka and Makoto Ohta** Flow behavior in elastic patient-specific cerebral aneurysm
14:30-15:00	**Alexey Kharchenko, Vyacheslav Stupak, Daniil Parshin, Anna Lipovka, Vladislav Fomenko, Maxim Filipenko** Mechanical properties of a composite material of chitosan-vancomycin-nanocellulose nanoparticles of bacterial origin to close dura mater defects
15:00-15:20	Coffee break
15:20-15:50	**Daniil Parshin, Anna Lipovka, Andrey Dubovoy** Hierarchy of hyperelastic models in aneurysm wall modelling
15:50-16:20	**Daniil Parshin, Anna Lipovka, Viktor Kulik** The effect of single-walled nanotubes on the mechanical properties of silicone composites
16:20-16:50	**Iuliia Kuianova, Andrey Dubovoy, Daniil Parshin** Numerical modelling of the optimization of cerebral bypasses