HIGHER SCHOOL OF THEORETICAL MECHANICS

“GAZPROMNEFT-POLYTECH” RESEARCH AND EDUCATIONAL CENTER

POLYTECH
Peter the Great
St.Petersburg Polytechnic
University

THEORMECH
Higher School
of Theoretical Mechanics

HIGHER SCHOOL OF THEORETICALS MECHANICS

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

HIGHER SCHOOL OF THEORETICAL MECHANICS

Center of youth scientific creativity and Fablab Polytech, SPbPU 2013

REC “Biomechanics and medical engineering”, SPbPU 2016

REC “Gazpromneft-Polytech”, SPbPU 2015

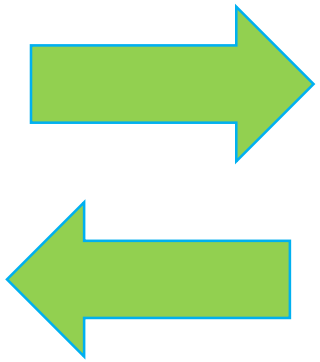
Laboratory “Discrete models of mechanics”, IPME RAS

Department “Theoretical Mechanincs”, SPbPU

“GAZPROMNEFT-POLYTECH” RESEARCH AND EDUCATIONAL CENTER

STUDENTS, GRADUATE STUDENTS,
Research & Development projects,
STAFF DEVELOPMENT

REC GAZPROMNEFT-POLYTECH



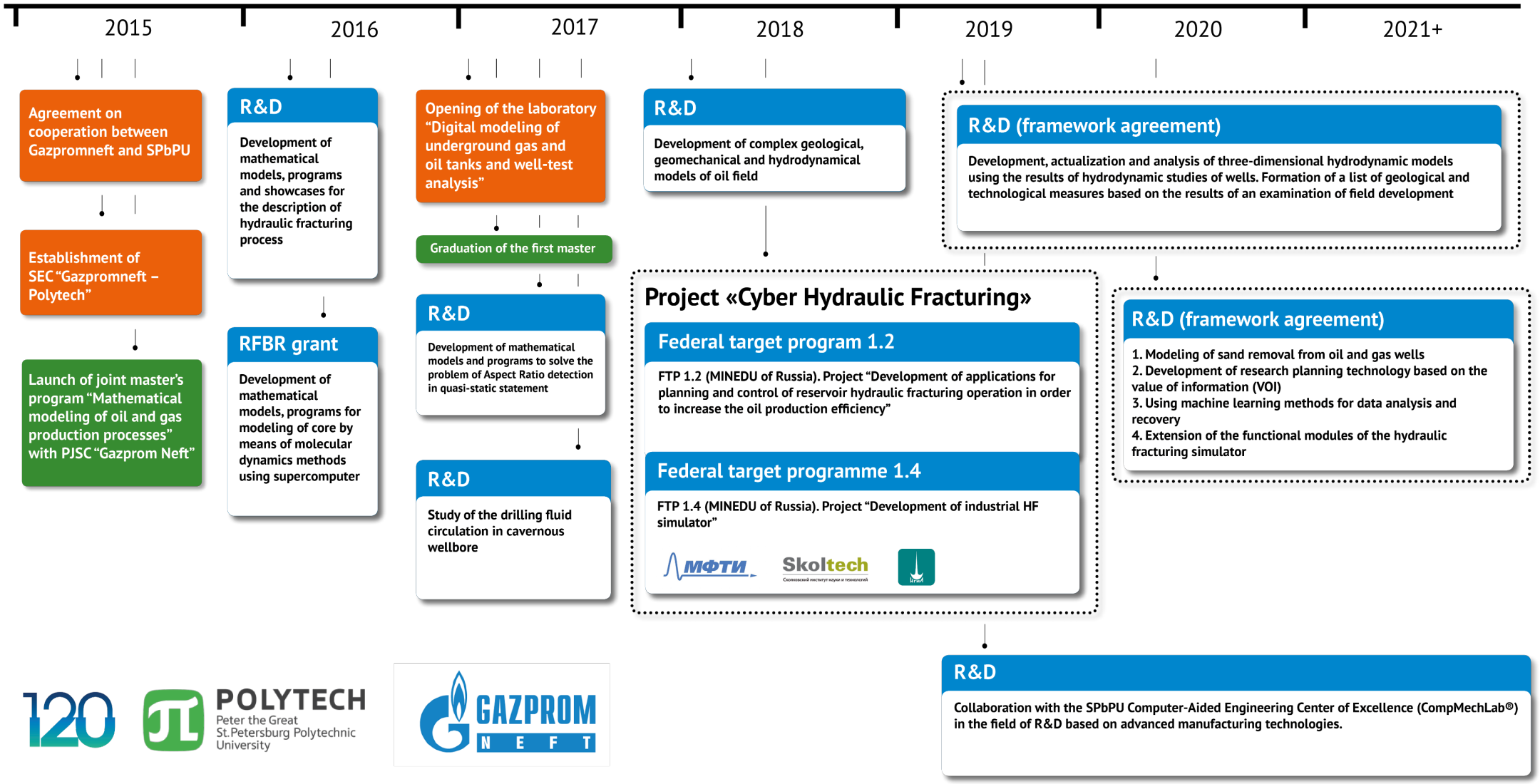
Gazpromneft Science & Technology Centre

TASKS, FUNDING, REAL CHALLENGES

“GAZPROMNEFT-POLYTECH” RESEARCH AND EDUCATIONAL CENTER

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”



120
POLYTECH
Peter the Great St.Petersburg Polytechnic University

GAZPROM NEFT

“GAZPROMNEFT-POLYTECH” RESEARCH AND EDUCATIONAL CENTER

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

80 + EMPLOYEES

15 R&D projects

300+ STUDENTS

MAIN TARGET OF REC

A qualitative increase
in the professional level of
specialists in the field of developing
mathematical models of oil and gas
production processes by solving real
industry problems

REC PROVIDES

R&D work on the development of
mathematical models of oil production in
the interests of **Gazpromneft Science &
Technology Centre**

MAIN FOCUS

Development of new software and
numerical solutions to the problems
of the oil industry, as well as the
training of highly qualified personnel
for oil and gas industry

“GAZPROMNEFT-POLYTECH” RESEARCH AND EDUCATIONAL CENTER

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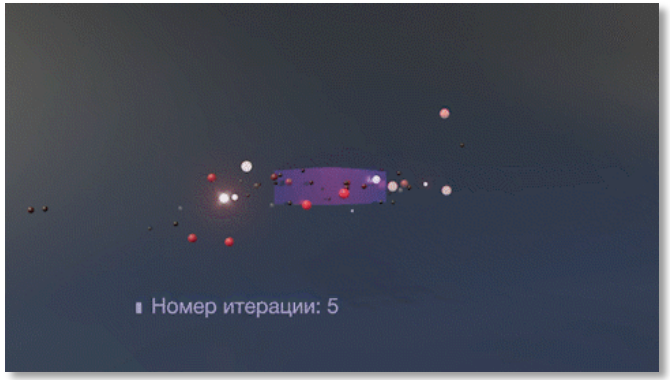
of Theoretical Mechanics

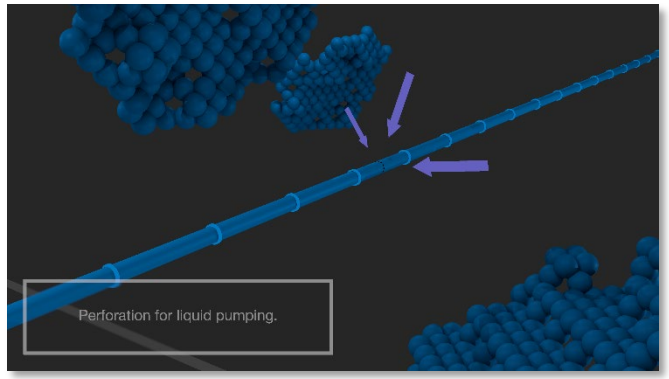
REC “Gazpromneft-Polytech”

1. WIN
“CyberFrac” contest

2. DEVELOPMENT
Russia’s own cutting-edge fracturing simulator



3. WIN
Federal Target Programs



POLYTECH
Peter the Great St.Petersburg Polytechnic University

МФТИ

Skoltech
Skolkovo Institute of Science and Technology

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1 DRILLING PROCESS MODELING

- Vibration drilling of hard rock
- Managed pressure drilling
- Dynamic buckling modeling

2 HYDRAULIC FRACTURING MODELING

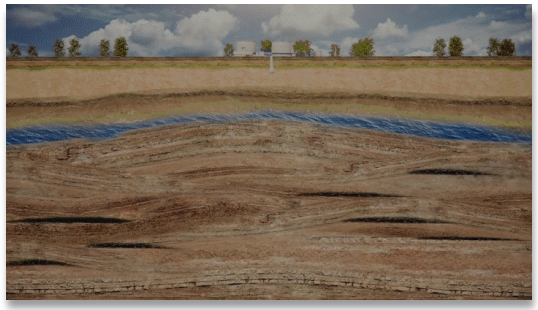
- Hydraulic fracturing models in traditional reservoirs (pseudo3d, planar3d, full3d)
- Multistage/hydraulic fracturing models in fractured reservoirs
- Proppant transport
- Laboratory experiments

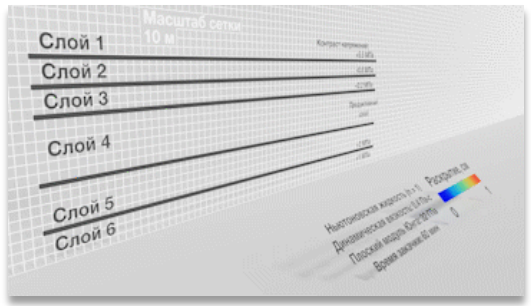
3 MICROSEISMIC MODELING

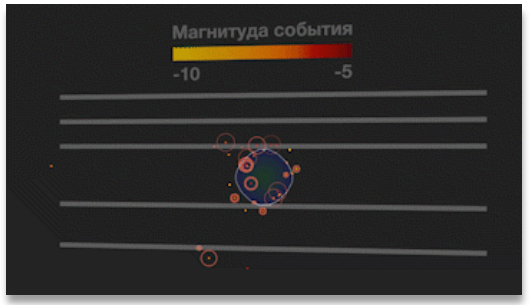
- Microseismic events modeling in hydraulic fracturing
- Microseismic events interpretation

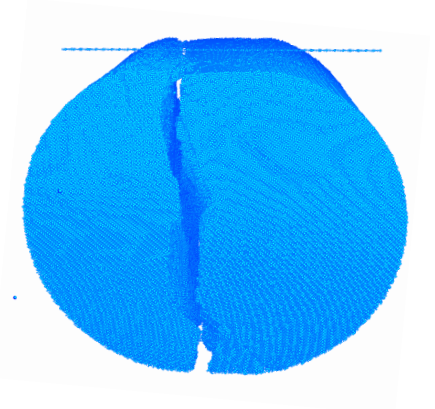
4 MODELING OF CORE SAMPLE MECHANICAL PROPERTIES

- Elastic properties
- Brazilian test (strength)









PARTICIPATION IN INTERNATIONAL PROJECTS. HYDROFRAC

THEORMECH
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REC “Gazpromneft-Polytech”

Participation in the EU project HYDROFRAC

SEVENTH FRAMEWORK PROGRAMME

START
1 SEPT 2010

END
31 AUG 2014

5 COUNTRIES

40+ SCIENTIFIC PUBLICATIONS

4 CONFERENCES

1 530 901 EURO

The project aim is to enhance the hydraulic fracturing techniques to increase the productivity of oil and gas reservoirs. The objective will be reached by developing numerical simulation of coupled geomechanical, hydrodynamic and microseismic processes for proper choices of equipment, regimes and parameters of hydraulic fracturing. Simulation of microseismicity will also provide a unique means to improve the interpretation of microseismic data.

Participants (4)

Sort alphabetically | Sort by EU Contribution | Expand all

POLITECHNIKA RZESZOWSKA IM IGNACEGO LUKASIEWICZA PRZ Poland	EU Contribution € 250 422	
The Regents of New Mexico State University United States		
SINTEF PETROLEUM AS Norway		
EUROTECH SP ZOO Poland	EU Contribution € 858 163	

Coordinator

ABERYSTWYTH UNIVERSITY

Address	Activity type	EU Contribution
Visualisation Centre Penglais Sy23 3bf Aberystwyth United Kingdom	Higher or Secondary Education Establishments	€ 422 316

Website | Contact the organisation

Administrative Contact
Gennady Mishuris (Prof.)

Project information

HYDROFRAC

Grant agreement ID: 251475

Status
Closed project

Start date	End date
1 September 2010	31 August 2014

Funded under:
FP7-PEOPLE

Overall budget:
€ 1 530 901

EU contribution
€ 1 530 901

Coordinated by:

1872 PRIFYSGOL ABERYSTWYTH UNIVERSITY

EUROTECH ADVANCED TECHNOLOGY PRODUCTS

RZESZOW UNIVERSITY OF TECHNOLOGY

NM STATE UNIVERSITY

SINTEF

NANOSCALE THERMOMECHANICS

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SYNOPSIS: Development of a new theory for anomalous thermal processes at nanoscale

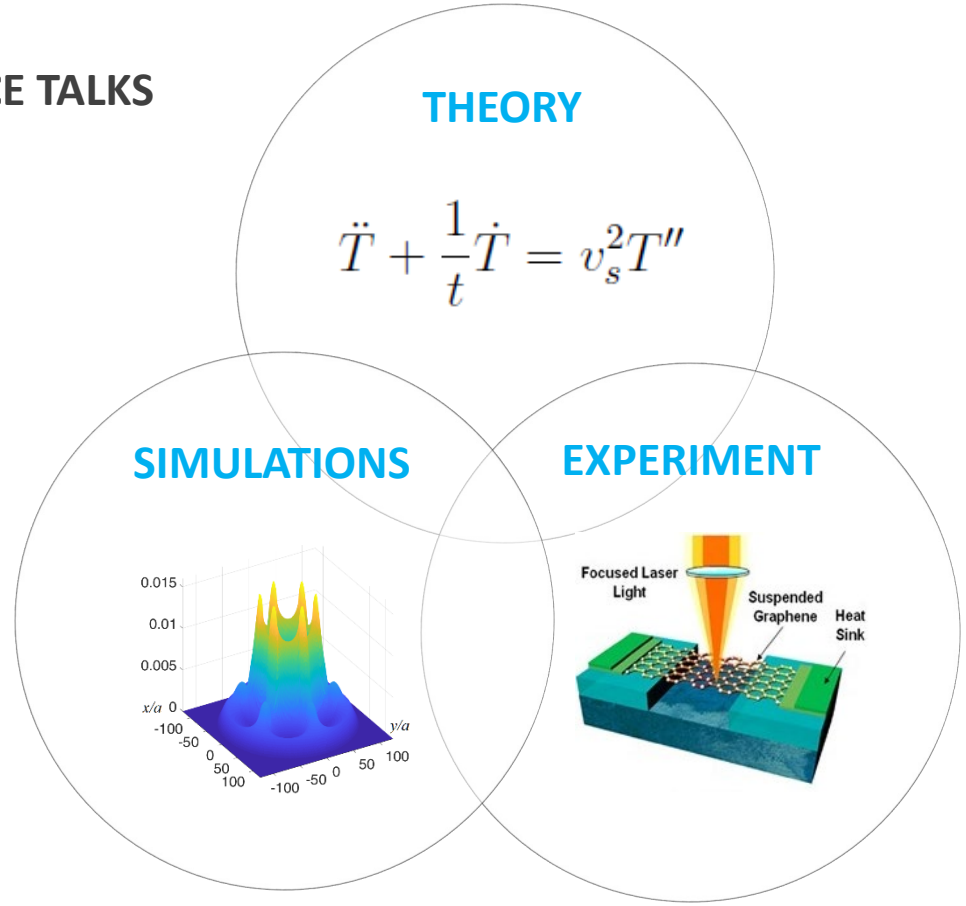
3 RSCF & RFBR GRANTS **25+** PAPERS **50+** CONFERENCE TALKS

NEW PHENOMENA:

- Heat superconductivity
- Inverse heat flux
- Temperature waves
- Thermal echo
- Ballistic resonance

COLLABORATION

- Technical University of Berlin (Germany)
- Aberdeen University (UK)
- Institute for Problems in Mechanical Engineering RAS
- Institute of Superplasticicy RAS



HEAT SUPERCONDUCTIVITY: EXPERIMENT AND POTENTIAL APPLICATIONS

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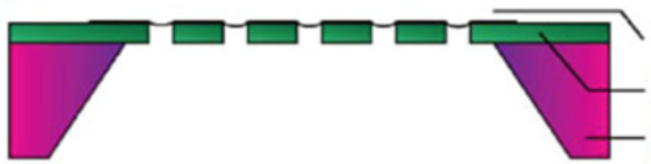
Technische Universität Berlin

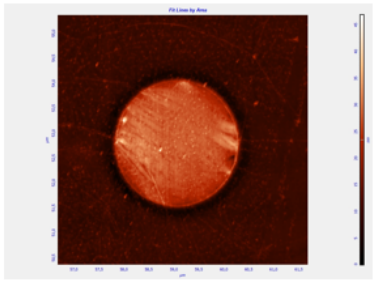
POLYTECH
Peter the Great St.Petersburg Polytechnic University

Ioffe Physical-Technical Institute

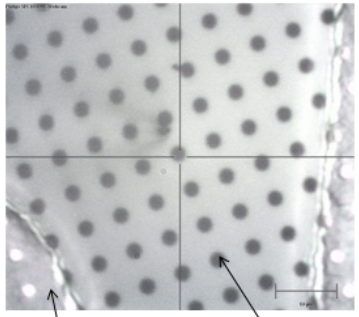
EXPERIMENTS



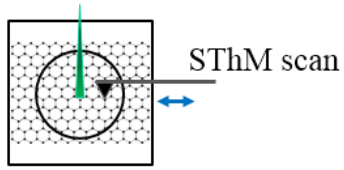
Scheme of the specimen



SEM topography scan of a graphene membrane performed at Ioffe institute St. Petersburg



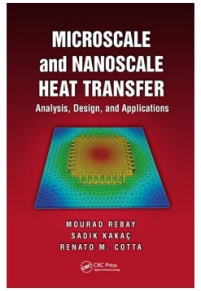
Scheme of an experiment
Laser heating



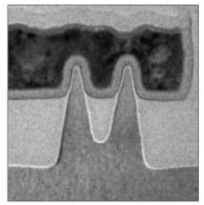
Suspended graphene
Circular symmetry

COOLING IN SPACE

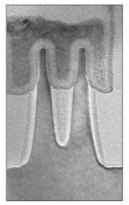
COOLING MICROPROCESSORS



Transistor Fin Improvement



22 nm 1st Generation Tri-gate Transistor



14 nm 2nd Generation Tri-gate Transistor

Intel's Process Node Density									
	90 nm	65 nm	45 nm	32 nm	22 nm	14 nm	14 ++	10 nm	7 nm*
Year	2004	2006	2008	2010	2012	2014	2018	2019	*2023*
Density MTr/mm2	1.45	2.08	3.33	7.11	16.5	44.67	37.22	100.76	*237.18*

** Estimated*

NANOSCALE THERMOMECHANICS

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

- Exchange of ideas
- Joint papers
- Joint minisimposia
- Joint PhD students
- Joint grant applications

Prof. Antonio Politi,
Aberdeen University

Prof. Wolfgang Mueller,
Technical University of Berlin

Prof. Sergey Dmitriev,
Institute of Superplasticity RAS

Dr. Igor Berinskii,
Tel Aviv University

ALGORITHMS FOR AUTOMATIC CALCULATION OF MANEUVER DIVERGENCE OF A CREWLESS VESSEL

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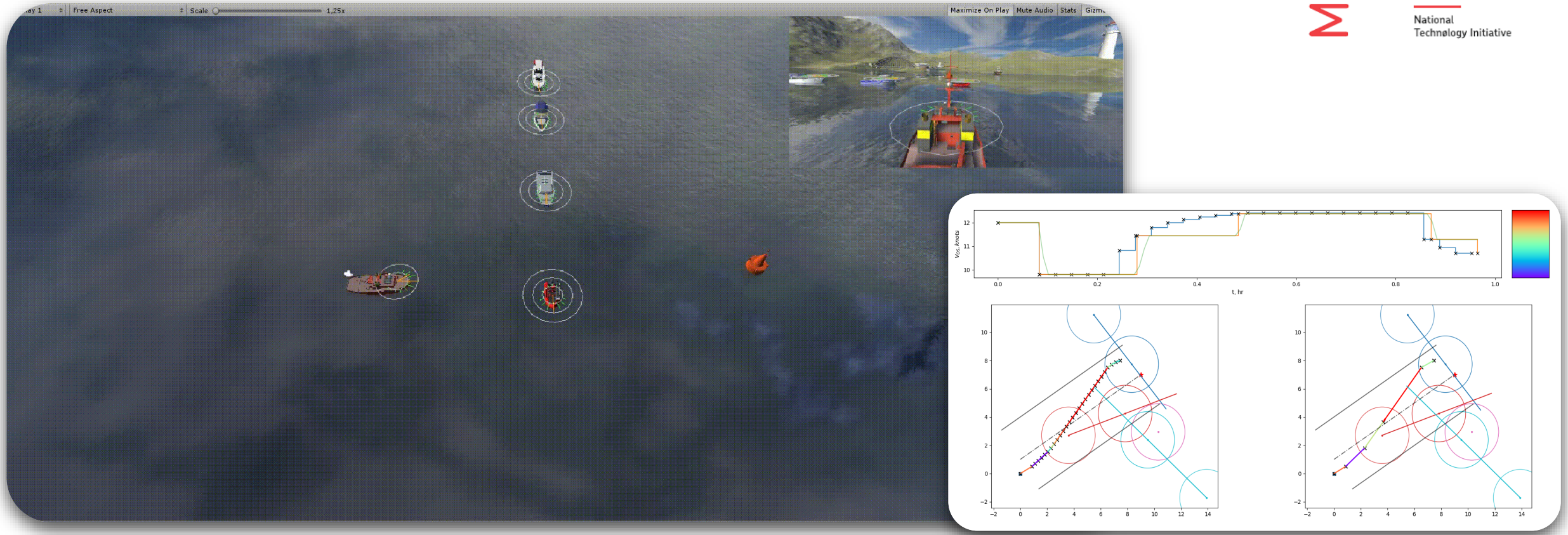
KT

MARINET

Marinet
National
Technology Initiative

Collaboration with Kronstadt Technologies JSC and Marinet

Developent of algorithms for control of autonomous vessels (optimal trajectory, collision avoidance etc.)



PARTICIPATION IN INTERNATIONAL PROJECTS. ALPINE REPLAY

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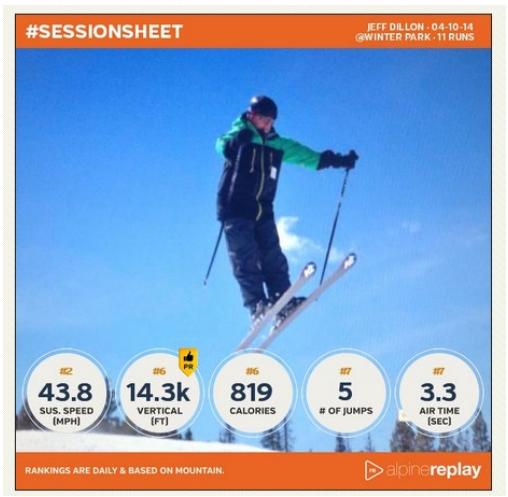
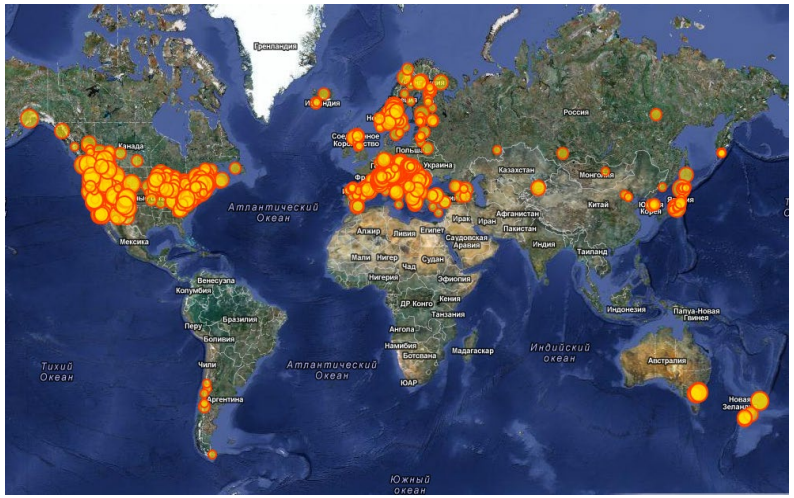
5 US PATENTS PENDING

1500 RESORTS

500 000 USERS

6 000 000 JUMPS DETECTED





www.alpinereplay.com

Google Play

BEST APP GOOGLEPLAY

SCOPE OF RESEARCH

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Higher School
of Theoretical Mechanics

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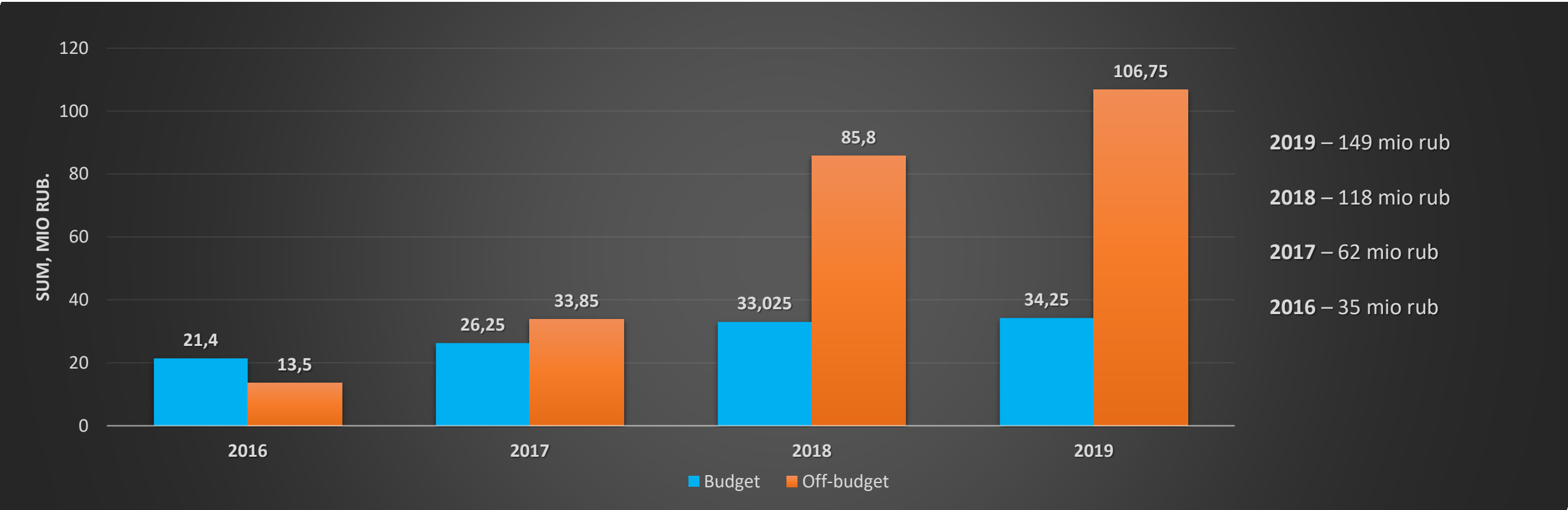
During the period from 2010 to 2018, more than **30** **research projects** were implemented, including **9** **under the leadership of young scientists.**
Extrabudgetary share – **72%**



NUMBER OF PUBLICATIONS

296

NUMBER OF PUBLICATIONS OF HIGHER SCHOOL OF THEORETICAL MECHANICS IN 2015-2019 (SCOPUS, WOS)

33.1

AVERAGE PUBLICATION CITATION RATE (SCOPUS, WOS) PER 1 CPD IN 2015-2019 (SCOPUS, WOS)

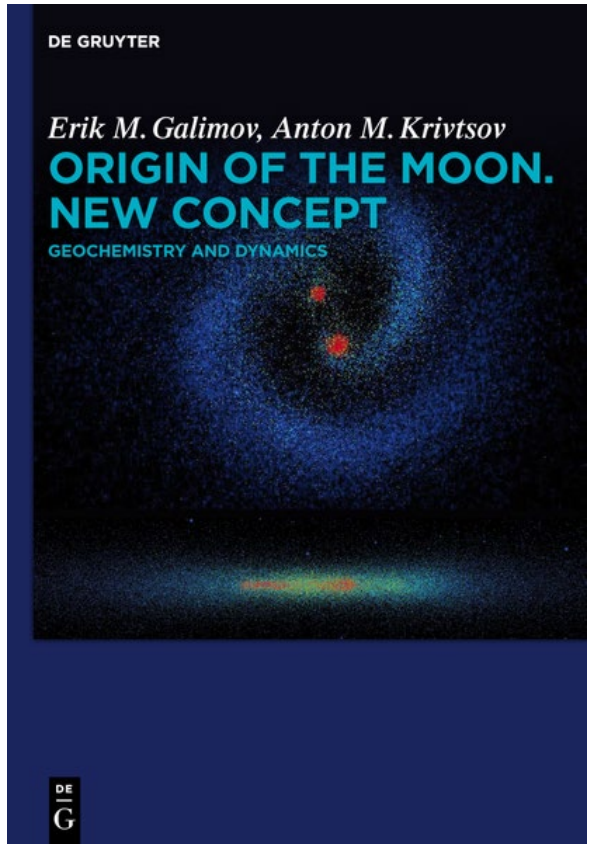
6.9

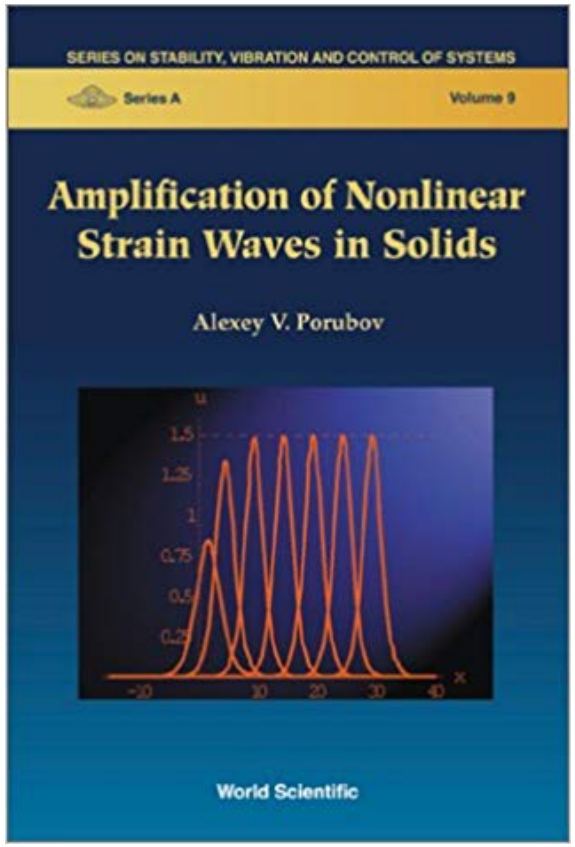
NUMBER OF PUBLICATIONS (SCOPUS, WOS) PER 1 CPD IN 2015-2019 (SCOPUS, WOS)

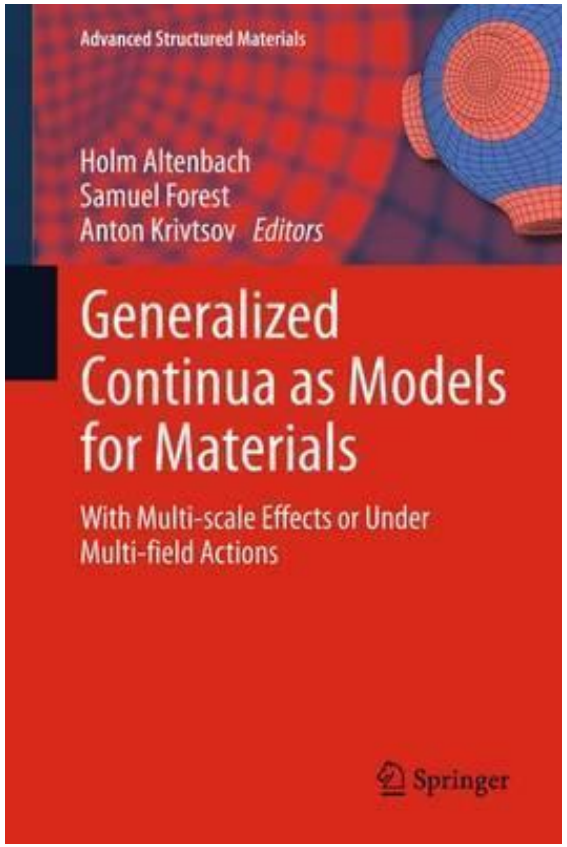
JOURNAL RANKING:

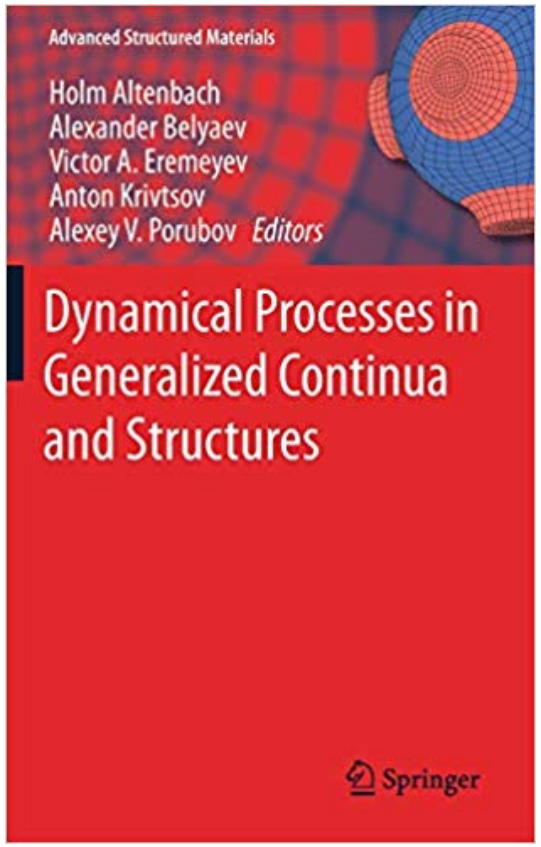
- International Journal of Engineering Science (Q1), Impact Factor - 9.052
- Nonlinear Dynamics (Q1), Impact Factor - 4.604
- Optics and Lasers in Engineering (Q1), Impact Factor - 4.059
- Communications in Nonlinear Science and Numerical Simulation (Q1), Impact Factor - 3.967
- Chaos, Solitons and Fractals (Q1), Impact Factor - 3.064
- Journal of Sound and Vibration (Q1), Impact Factor - 3.123
- Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences (Q1), Impact Factor - 3.093
- Applied Mathematics and Computation (Q1), Impact Factor - 3.092
- Engineering Fracture Mechanics (Q1), Impact Factor - 2.908
- International Journal of Solids and Structures (Q1), Impact Factor - 2.787
- Journal of Physics Condensed Matter (Q1), Impact Factor - 2.711
- Ultrasonics (Q1), Impact Factor - 2.598
- Physical Review E (Q1), Impact Factor - 2.353
- Mechanics Research Communications (Q1), Impact Factor - 2.229
- International Journal of Non-Linear Mechanics (Q1), Impact Factor - 2.225
- Acta Mechanica (Q1), Impact Factor - 2.166
- Journal of Elasticity (Q1), Impact Factor - 1.906

RECENT MONOGRAPHS (IN ENGLISH)









KEY PROFESSORS

THEORMECH
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P.A. Zhilin and 3 Theormech professors are mentioned in the "Non-classical continuum mechanics: a dictionary" and "Continuum Mechanics Through the XX Century. A Concise Historical Perspective" by G.A. Maugin, a classic of continuum mechanics

Prof. Anton M. Krivtsov, Dr. Sci, corr. member RAS, h=16, 830+ citations, 85 papers indexed in Scopus, 9 monographs and book chapters

- Member of the Editorial board of Journal of Mechanical Engineering Science
- 5+ international research projects (Germany, UK, Spain). Co-chairman of APM

Prof. Mark L. KACHANOV, PhD, h=43, 7200+ citations 170+ papers indexed in Scopus

- Editor-in-Chief, International Journal of Engineering Science (Impact factor 9.052)
- Expertise for Schlumberger, Shell, Siemens Research Center, General Motors, General Electric, Alstom Power (Switzerland)

Prof. Alexey V. PORUBOV, Dr. Sci, h=18, 1000+ citations, 80+ papers indexed in Scopus

- Reviewer for 30+ international journals
- 5+ international research projects (France, Germany, Spain, Italy, Japan)

Prof. Elena A. IVANOVA, Dr. Sci, h=8, 190+ citations, 30+ papers indexed in Scopus, 6 book chapters

- Member of the Editorial Board of journal “Zeitschrift für Angewandte Mathematik und Mechanik“
- Editor in Encyclopedia of Continuum Mechanics, 2020

Prof. Elena N. VILCHEVSKAYA, PhD, h= 8, 150+ citations, 40 papers indexed in Scopus, 10+ book chapters

- Visiting professor at Technical University of Berlin, Germany Reviewer for 5 international journals
- 3 international research projects (Germany)

Prof. Serge N. GAVRILOV, Dr. Sci., h=8, 170+ citations, 30+ papers indexed in Scopus

- Member of the Editorial Board of journal “Continuum mechanics and thermodynamics“
- Reviewer for 6 international journals

Prof. Elena F. GREKOVA, PhD, h= 8, 170+ citations, 26 papers indexed in Scopus, 4 book chapters

- Foreign member of Electrohydrodynamics and cohesive granular media group, University of Seville, Spain
- 5+ international research projects (Spain, USA)

Prof. Vitaliy A. Kuzkin, PhD, h= 8, 170+ citations, 30 papers indexed in Scopus, 6 monographs and book chapters

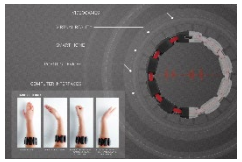
- Outstanding reviewer Awards Journal of physics 2018
- Reviewer for 10+ international journals.

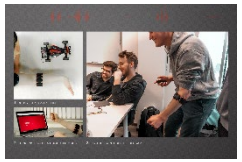
RECENT AWARDS. TILT PROJECT

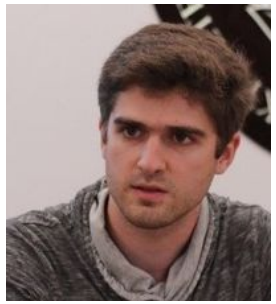
THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

THE JAMES DYSON AWARD



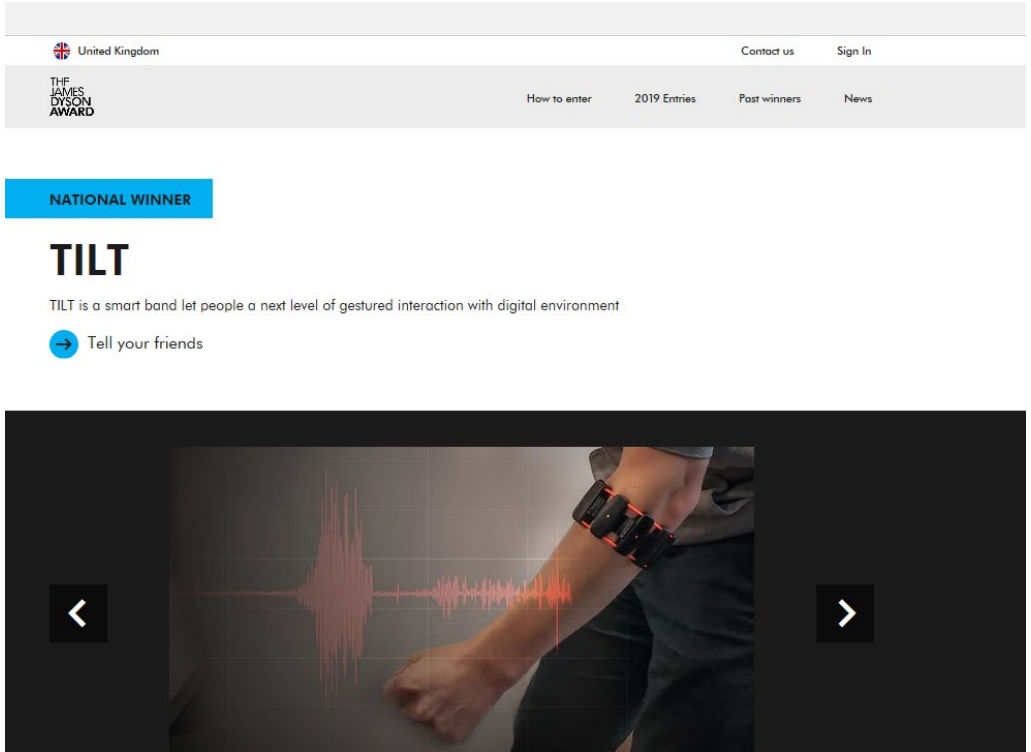




Oleg Kovalev heads the Bionic Systems Laboratory, which develops a bionic prosthetic hand

TILT is a smart band let people a next level of gestured interaction with digital environment

The TILT project of our PhD student **Oleg Kovalev** and his team won the Russian stage of the international competition in the field of engineering design **JAMES DYSON AWARD**



EDUCATIONAL PROGRAMS

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

BACHELOR’S DEGREE PROGRAMS

(division after second year of study)

- **Mathematical Modeling of Oil and Gas Production Processes**
- Mechanics and mathematical modeling of media with microstructure
- Biomechanics and Medical Engineering

MASTER’S DEGREE PROGRAMS

- **Mathematical Modeling of Oil and Gas Production Processes (in conjunction with Gazprom Neft PJSC)**
- Solid Mechanics
- Mechanics and mathematical modeling (international program in English)
- Mechanics and Digital Production (in conjunction with goTRG)

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EDUCATIONAL PROGRAMS

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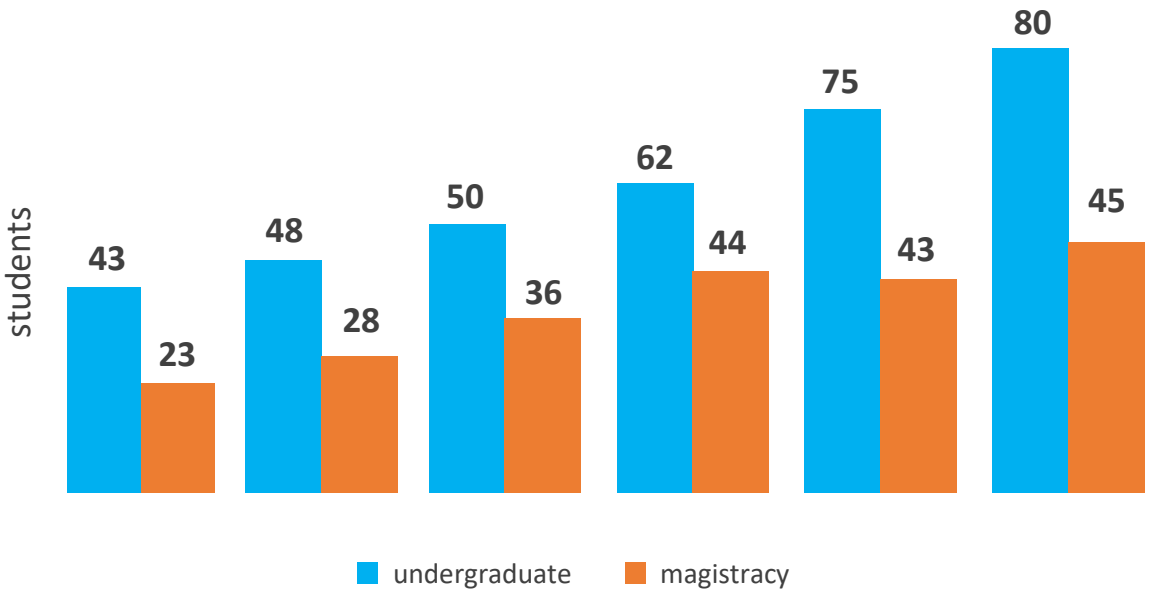


Year	Number of state-funded places	Minimum grade	Grade point average
2019	75	244	261/87
2018	62	233	249/83
2017	50	223	246/82
2016	35	221	256/85

gpn.spbstu.ru

ACADEMIC MOBILITY 2014-2019

- **Aalto University (Finland)**
  Olga Bogdanova, Anastasia Baltser
- **Delft University of Technology (Netherlands)**
  Andrey Murachev
- **Technische Universität Berlin (Germany)**
  Ksenia Frolova, Polina Grigorieva, Anna Morozova, Maria Fomicheva, Aleksey Sokolov
- **Technilcal University of Stuttgart (Germany)**
  Nikolay Markov, Aleksey Sokolov
- **Leibniz Universität Hannover (Germany)**
  Valentina Vanyushkina, Denis Tsvetkov, Ilya Antonov, Andrey Shubin, Gleb Miroshnik, Vladislav Chernogorskiy
- **Technischen Universität Kaiserslautern (Germany)**
  Aleksey Yashin, Vitaliy Kim
- **Technische Universität Darmstadt (Germany)**
  Anna Lobas
- **Universität Regensburg (Germany)**
  Ekaterina Sizova
- **École polytechnique (France),**
  Nikhil Mohanan
- **Swiss Federal Laboratories (Switzerland)**
  Darya Pyatnickaya
- **Weatherford (USA)**
  Dmitriy Ershov
- **FabLab (China)**
  Oleg Kovalev, Dajnis Dzenushko

INTERNATIONAL PARTNERSHIP

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

TUFTS UNIVERSITY, USA

- Lectures of **Prof. Mark Kachanov (H=42)** for students of International Master’s degree program “Mechanics and Mathematical Modeling”
- Plenary lectures of Prof. Kachanov at the International summer school – conference “Advanced problems in mechanics”
- Joint publications indexed in WoS/Scopus

TECHNICAL UNIVERSITY OF BERLIN, GERMANY

- Lectures of **Prof. Wolfgang Muller (H=26)** for students of International Master’s degree program “Mechanics and Mathematical Modeling”
- Annual participation in International summer school – conference “Advanced problems in mechanics”
- Joint RSF-DFG grant
- Joint PhD project supported by the scholarship of the president of Russian Federation
- Joint publications indexed in WoS/Scopus
- Internships of TM students and graduates
- Invited lectures by TM professors in Berlin

UNIVERSITY OF CAMBRIDGE, UNITED KINGDOM

- Lectures of **Prof. Herbert Huppert (H=59)** for students of International Master’s degree program “Mechanics and Mathematical Modeling”
- Internships of TM students and graduates
- Joint publications

POLITECNICO DI TORINO, ITALY

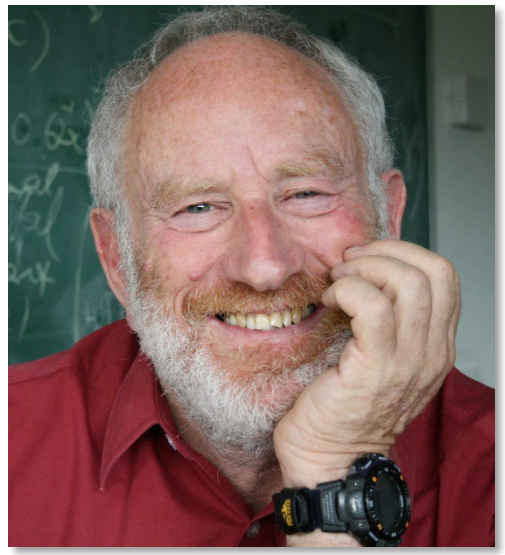
- Trilateral cooperation agreement in the field of science and education signed between Gazprom Neft PJSC, Politecnico di Torino and SPbPU
- Invited lectures by TM professors in Torino

INTERNATIONAL PARTNERSHIP

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

UNIVERSITY OF CAMBRIDGE



Prof. Herbert Huppert, University of Cambridge, H-index 59,
Royal Society member,
British Petrolium expert

INTERNATIONAL PARTNERSHIP

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Tufts
UNIVERSITY

Prof. Mark Kachanov, Tufts University,
H-index 42, Editor-in-Chief of
International Journal of Engineering Science
IF 9.052, SHELL, Marathon Oil,
Schlumberger expert

gpn.spbstu.ru

INTERNATIONAL PARTNERSHIP

Prof. Muller (H=26)

Technical University of Berlin

Joint RSF-DFG grant: Discrete and continuum models of anomalous energy transfer in crystalline materials. Joint graduate students supervision

Biannual lectures:
“Nonlinear deformation of solids in particular rubber”
“Rational Electrodynamics of Materials”

PhD student Alexey Sokolov. Experiments on graphene

Invited lectures by TM professors in TU Berlin

Tensor calculus,
Dr. Elena Vilchevskaya

Applied methods to solve non-stationary problems in mechanics,
Dr. Mikhail Babenkov

Linear elasticity,
Dr. Ekaterina Podolskaya

Introduction to machine learning, Andrey Murachev

INTERNATIONAL PARTNERSHIP

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

Trilateral cooperation agreement in the field of science and education signed between Gazprom Neft PJSC, Politecnico di Torino and Peter the Great St. Petersburg Polytechnic University

POLITECNICO
DI TORINO

The main areas of collaboration:

- joint research projects
- students exchange

**Nickolay Markov and Petroleum engineering group of Politecnico di Torino.
Teamwork on Harmonic Pulse Testing for Well Monitoring.**

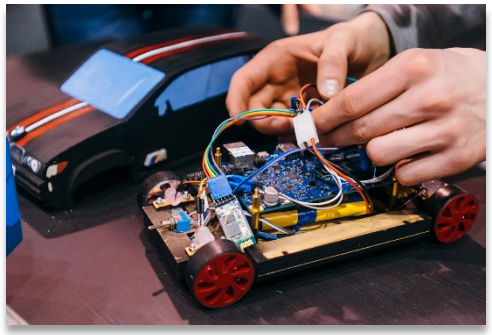
gpn.spbstu.ru

FABLAB POLYTECH

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

The word FabLab stands as an abbreviation for **Fab**rication **Lab**oratory (Production Laboratory). **FabLab** is an open, high-tech workshop for young people and members of the global FabLab network.



1000 +

labs worldwide!

The main goal of creating **FabLab Polytech** is to provide students and schoolchildren with the opportunity to realize their technical and creative ideas within the walls of Peter the Great Saint Petersburg Polytechnic University.

FabLab Polytech is a part of the **SPBPU Youth Technical Creativity Center,** which was officially inaugurated on 21st March 2013 and was built with the assistance of PhotoMechanics, Saint Petersburg, Russia

FABLAB POLYTECH

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

partners

international events

48 INTERNATIONAL SUMMER SCHOOL CONFERENCE ADVANCED PROBLEMS IN MECHANICS (APM)

THEORMECH Higher School of Theoretical Mechanics

REC “Gazpromneft-Polytech”

APM

21-27 JUNE 2020

POLYTECH Peter the Great St.Petersburg Polytechnic University

IPME

GAZPROM NEFT

РФФИ

Russian Academy of Sciences

THEORMECH Higher School of Theoretical Mechanics

The International summer school – conference (working language: English)

- Close cooperation with renowned foreign scientists
- Increase of the publication activity of SPbPU employees

APM-CONF.SPB.RU

! **APM proceedings are published by SPRINGER and indexed in SCOPUS**

340+ participants from 23 countries

40+ participants with h-index 20+

38 plenary lectures

11 minisymposia

9 sections

8 corresponding members

5 academicians

ADVANCED PROBLEMS IN MECHANICS (APM)

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

XLVII INTERNATIONAL SUMMER SCHOOL
CONFERENCE ADVANCED PROBLEMS
IN MECHANICS

APM-CONF.SPB.RU

1971

Ya. G. Panovko organized The first Summer School

1985

many conferences and schools on mechanics in Russia were terminated due to financial problems

1994

the IPME RAS restarted the Summer School, widened it topics and transformed into an international conference

1999

organized by IPME RAS in first international cooperation with GAMM

2000

NOMS was renamed APM

2007

added special “young participants section” for students PhD students

2014

Since 2014, the conference always takes place in the Polytechnic University.
The topics of the conference cover now all fields of mechanics and associated into **interdisciplinary problems.**

APM became the principal international conference on mechanics in Russia

Founding members of APM: Corresponding member of RAS D.A. Indeitsev, Prof. V.A. Palmov, Academician N.F. Morozov, Prof. P.A. Zhilin, Corresponding member of RAS A.K. Krivtsov.

ADVANCED PROBLEMS IN MECHANICS (APM)

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

EVENTS IN THE FRAME OF APM ORGANIZED IN COLLABORATION WITH FOREIGN RESEARCH INSTITUTIONS

2004

Seismic Waves Propagation (G.C. Herman, TU Delft, **Shell E.&P.**, The Netherlands).

2005

EUROMECH COLLOQUIUM 468 “Multi- scale Modelling in the Mechanics of Solids”
Wave Mechanics of Civil Engineering Structures (A.V. Metrikine, Delft, The Netherlands).

2006

Nonlinear Dynamics of Engineering Systems. M. Wiercigroch , E. Pavlovskaya (Aberdeen, UK)

2009

The 3rd **ADHESINT INTERNATIONAL WORKSHOP** on: “Adhesive interactions between particles and surfaces at micro and nano-scales”.

2007

Young scientists’ school-conference “Modern Ways in Mechanics” (MWM)

2012

INTERNATIONAL WORKSHOP “Exotic Structures and Homogenization” Prof. Andrej Cherkaev (**University of Utah**)

2019

New developments in generalized continua — theories and experiments (Wolfgang H. Muller)

Numerous minisymposia organized by outstanding foreign scientists

APM-CONF.SPB.RU

ADVANCED PROBLEMS IN MECHANICS (APM)

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

Over the past **20** **years**, due to participation international scientists and organization of symposiums on their scientific research, the conference attracted more than **1500** **foreign participants**.

A. Castellanos
(University of Seville, Spain)

M. Wiercigroch
(University of Aberdeen, UK)

A.V. Metrikine
(TU Delft, The Netherlands)

A. Ramos
(University of Seville, Spain)

H. Altenbach
(Otto-von-Guericke University Magdeburg, Germany)

J. Jenkins
(University of Cornell, USA)

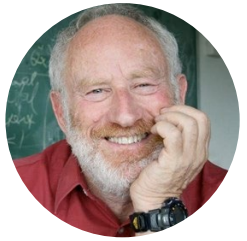
Wolfgang H. Müller
(Technical University of Berlin, Germany)

F. Dell’Isola
(Sapienza Università di Roma, Italy)

Prof. Antonio Politi,
Aberdeen University

R. Kienzler
(University of Bremen, Germany)

J.-N. Roux
(Université Paris-Est, Laboratoire Navier, France)



G. Huppert
(University of Cambridge, UK)

COOPERATION WITH EUROMECH AND IUTAM

THEORMECH
Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

COLLOQUIA

- approximately 10 per year
- 40 to 70 researchers invited
- **deadline for proposals for year N+1: March, 15, year N**

CONFERENCES

- EFMC (Fluid Mechanics) ***every 2 years***
- EMMC (Mechanics of Materials) ***every 2 years***
- ENOC (Nonlinear Oscillations) ***every 3 years***
- ESMC (Solid Mechanics Conference) ***every 3 years***
- ETC (Turbulence) ***every 2 years***

EUROPEAN MECHANICS SOCIETY

FOUNDED IN 1964

Individual members

Advisory board

Prof. Alexander K. Belyaev

IUTAM International Union of Theoretical and Applied Mechanics

FOUNDED IN 1922

Ac. Irina G. Goryacheva

ICTAM Milano 2020

Congresses

- every **4** years
- **proposals for year N+4: year N**

Symposia

- proposals to be submitted to **IUTAM Bureau** (currently the call for submissions is closed)

CONTACTS

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Higher School
of Theoretical Mechanics

REC “Gazpromneft-Polytech”

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