

# 19th International Conference named after A. F. Terpugov

# ****INFORMATION TECHNOLOGIES AND MATHEMATICAL MODELLING****

# ****IТММ – 2020****

## ****Tomsk, Russia****

**December, 2-5, 2020**

**Conference International Program Committee**

**Международный программный комитет конференции**

**Alexander Dudin**, Belarusian State University, Belarus – chair

**Anatoly Nazarov**, National Research Tomsk State University, Russia – co-chair

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**Udo Krieger**, [Otto Friedrich University of Bamberg](http://www.mathnet.ru/php/organisation.phtml?option_lang=rus&orgid=8232), Germany

**Achyutha Krishnamoorthy**, CMS College, India

**Krishna Kumar**, Anna University, India

**Quan-Lin Li**, Yan Shan University, China

**Yury Malinkovsky**, Francisk Skorina Gomel State University, Belarus

**Mikhail Matalytski**, Yanka Kupala State University of Grodno, Belarus

**Agassi Melikov**,National Aviation Academy of Azerbaijan, Azerbaijan

**Alexander Moiseev**, National Research Tomsk State University, Russia

**Svetlana Moiseeva**, National Research Tomsk State University, Russia

**Paulo Montezuma-Carvalho**, Universidade Nova de Lisboa, Portugal

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**Rein Nobel**, Vrije Universiteit Amsterdam, Тhе Netherlands

**Michele Pagano**, Pisa University, Italy

**Tuan Phung-Duc**, University of Tsukuba, Japan

**Thomas B. Preußer**, Technische Universität Dresden, Germany

**Jacques Resing**, Eindhoven University of Technology, The Netherlands

**Vladimir Rykov**, Gubkin Russian State University of Oil and Gas, Russia

**Konstantin Samuylov**, Peoples' Friendship University of Russia, Russia

**Sergey Suschenko**, National Research Tomsk State University, Russia

**Daniel Stamate**, Goldsmiths College, United Kingdom

**Janos Sztrik**, University of Debrecen, Hungary

**Henk Tijms**, Vrije Universiteit Amsterdam, Тhе Netherlands

**Oleg Tikhonenko**, [Cardinal Stefan Wyszyński University in Warsaw](http://www.mathnet.ru/php/organisation.phtml?option_lang=rus&orgid=8803), Poland

**Gurami Tsitsiashvili**, Institute of Applied Mathematics, Far Eastern Branch of Russian Academy of Sciences, Russia

**Vladimir Vishnevsky**, Institute of Control Sciences, Russian Academy of Sciences, Russia

**Anton Voitishek**, Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Russia

**Vladimir Zadorozhny**,Omsk State Technical University, Russia

**Alexander Zamyatin**, National Research Tomsk State University, Russia

**Andrey Zorin**, Lobachevsky State University of Nizhni Novgorod, Russia

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**Организационный комитет конференции**

**Svetlana Moiseeva**, National Research Tomsk State University, Russia – chair

**Svetlana Paul**, National Research Tomsk State University, Russia – co-chair

**Valentina Broner**, National Research Tomsk State University, Russia

**Elena Danilyuk**, National Research Tomsk State University, Russia

**Ekaterina Fedorova**, National Research Tomsk State University, Russia

**Anastasiya Galileiskaya**, National Research Tomsk State University, Russia

**Elena Glukhova**, Moscow Institute of Physics and Technology, Russia

**Yana Izmailova**, National Research Tomsk State University, Russia

**Irina Kochetkova**, Peoples’ Friendship University of Russia, Russia

**Ivan Lapatin**, National Research Tomsk State University, Russia

**Ekaterina Lisovskaya**, Peoples’ Friendship University of Russia, Russia

**Olga Lizyura**, National Research Tomsk State University, Russia

**Anna Morozova**, National Research Tomsk State University, Russia

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**Daria Semenova**, Siberian Federal University, Russia

**Maria Shklennik**, National Research Tomsk State University, Russia

**Alexey Shkurkin**, National Research Tomsk State University, Russia

**Konstantin Voytikov**, Moscow Institute of Physics and Technology, Russia

**Conference Organizers**

**Организаторы конференции**

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|  | National Research Tomsk State UniversityНациональный исследовательский Томский государственный университет |
|  | Peoples’ Friendship University of RussiaРоссийский университет дружбы народов |
|  | V.A. Trapeznikov Institute of Control Sciences of Russian Academy of SciencesИнститут проблем управления им. В.А. Трапезникова РАН |

**CONFERENCE PROGRAMM**

**План работы КОНФЕРЕНЦИИ**

**Venue:** National Research Tomsk State University, 634050, Lenina av. 36, Tomsk, Russian Federation

**Место проведения:** Национальный исследовательский Томский государственный университет, Томск, Россия

**Platform:** Zoom

<https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09>

**Opening ceremony of the 19th International Conference «Information Technologies and Mathematical Modelling»**

**(IТММ – 2020) named after A.F. Terpugov**

**Plenary talk**

**TRACK «QUEUING THEORY AND APPLICATION**

**TRACK «MATHEMATICAL MODELLING OF COMMUNICATION NETWORKS»**

<https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09>

**TRACK «INFORMATION TECHNOLOGIES AND SOFTWARE ENGINEERING**

**TRACK «MATHEMATICAL AND COMPUTER MODELLING OF TECHNOLOGICAL PROCESSES»**

**TRACK «INTELLIGENT DATA ANALYSIS AND VISUALIZATION»**

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| **December 2, 2020 / 2 декабря 2020 г.** |
| **10.00–10.45 (Moscow)** | **Opening ceremony of the 19th International Conference «Information Technologies and Mathematical Modelling» (IТММ – 2020) named after A.F. Terpugov.**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**Welcome address by:****Artem Rykun**, vice-rector for International Affairs, Tomsk State University, Russia**Alexander Zamyatin**, Director of Institute of Applied Mathematics and Computer Science, Tomsk State University, Russia**Konstantin Samuylov**, Director Institute of Applied Mathematics & Communications Technology, Peoples’ Friendship University of Russia, Russia**Mais Farhadov**, Head of Laboratory ASMON, Institute of Control Sciences, Russian Academy of Sciences, Russia**Alexander Dudin**, chair of international program committee, Belarusian State University, Belarus**Achyutha Krishnamoorthy**, prof. CMS College, India | ***Working language: English*** |
| **14.00–14.45 (Tomsk)** |
| **11.00–11.40 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**Plenary talk** “Working with a Huge Number of Antennas in 5G and Beyond: Challenges and Opportunities”**Rui Dinis**, Universidade Nova de Lisboa, Portugal | ***Working language: English*** |
| **15.00–15.40 (Tomsk)** |
| **11.40–12.20 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**Plenary talk** “Decomposable semi-Regenerative Processes and their Applications”**Vladimir Rykov**, Peoples’ Friendship University of Russia, Russia | ***Working language: English*** |
| **15.40–16.20 (Tomsk)** |
| **13.00–15.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 1»***Chief*– **Achyutha Krishnamoorthy**, prof. CMS College, India*Moderator –* ***Svetlana Paul***, National Research Tomsk State University, Russia | ***Working language: English*** |
| **17.00–19.00 (Tomsk)** |
| **15.00–16.40 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 2»***Chief*– **Alexander Dudin**, Belarusian State University, Belarus*Moderator –* ***Olga Lizura***, National Research Tomsk State University, Russia | ***Working language: English*** |
| **19.00–20.40 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.** |
| **06.30–09.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 3»***Chief*– **Gurami Tsitsiashvili**, Institute of Applied Mathematics, Far Eastern Branch of Russian Academy of Sciences, Russia*Moderator –* ***Ivan Lapatin***, National Research Tomsk State University, Russia | ***Working languages: Russian, English*** |
| **10.30–13.00 (Tomsk)** |
| **10.00–11.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**Plenary talk** “Terahertz wireless networks: applications, challenges, and early solutions»**Dmitry Molchanov,** Tampere Univeristy of Technology, Finland Peoples’ Friendship University of Russia, Russia | ***Working language: Russian*** |
| **14.00–15.00 (Tomsk)** |
| **11.00–12.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**Plenary talk** “Binary and multi-class classification in network anomaly detection using deep neural networks”**Michele Pagano**, Pisa University, Italy | ***Working language: Russian*** |
| **15.00–16.00 (Tomsk)** |
| **13.00–14.40 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 4»***Chief*– **Tuan Phung-Duc**, University of Tsukuba, Japan*Moderators* ***Olga Lizura***, National Research Tomsk State University, Russia | ***Working language: English*** |
| **17.00–18.40 (Tomsk)** |
| **15.00–17.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 5»***Chiefs*– **Michele Pagano**, Pisa University, Italy*Moderator* **– *Maria Shklennik***, National Research Tomsk State University, Russia | ***Working language: Russian*** |
| **19.00–21.00 (Tomsk)** |
| **13.00–14.40 (Moscow)** | **TRACK «INFORMATION TECHNOLOGIES AND SOFTWARE ENGINEERING 1»**[**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)*Chiefs*– **Alexander Moiseev**, National Research Tomsk State University, Russia **Konstantin Voytikov**, Moscow Institute of Physics and Technology, Russia*Moderator* **– Alexey Shkurkin**, National Research Tomsk State University, Russia | ***Working language: Russian*** |
| **17.00–18.40 (Tomsk)** |
| **15.00–17.00 (Moscow)** | **TRACK «INFORMATION TECHNOLOGIES AND SOFTWARE ENGINEERING 2»**[**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09) *Chiefs*– **Alexander Moiseev**, National Research Tomsk State University, Russia **Konstantin Voytikov**, Moscow Institute of Physics and Technology, Russia*Moderator* **– Alexey Shkurkin**, National Research Tomsk State University, Russia | ***Working language: Russian*** |
| **19.00–21.00 (Tomsk)** |

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| **December 4, 2020 / 4 декабря 2020 г.** |
| **08.00–11.00 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 6»***Chiefs*– **Anatoly Nazarov**, National Research Tomsk State University, Russia **Andrei Zorine**, Lobachevsky State University of Nizhni Novgorod, Russia*Moderator* **–– *Yana Izmailova,* Ekaterina Pavlova**, National Research Tomsk State University, Russia | ***Working language: Russian*** |
| **12.00–15.00 (Tomsk)** |
| **11.30–13.50 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «MATHEMATICAL MODELLING OF COMMUNICATION NETWORKS»***Chiefs*– **Janos Sztrik**, University of Debrecen, Hungary **Sergey Suschenko**, National Research Tomsk State University, Russia*Moderators* – **Elena Danilyuk**, National Research Tomsk State University, Russia **Ekaterina Lisovskaya**, Peoples’ Friendship University of Russia, Russia | ***Working languages: English, Russian*** |
| **15.30–17.50 (Tomsk)** |
| **11.00–15.00 (Moscow)** | [**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)**TRACK «INTELLIGENT DATA ANALYSIS AND VISUALIZATION»***Chiefs*– **Mais Farhadov**, Institute of Control Sciences, Russian Academy of Sciences, Russia **Daria Semenova**, Siberian Federal University, Russia*Moderator* – **Anna Morozova**, National Research Tomsk State University, Russia | ***Working language: Russian*** |
| **15.00–19.00 (Tomsk)** |
| **December 5, 2020 / 5 декабря 2020 г.** |
| **08.00–14.00 (Moscow)** | [**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)**TRACK «MATHEMATICAL AND COMPUTER MODELLING OF TECHNOLOGICAL PROCESSES»***Chiefs*– **Anton Voitishek**, Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Russia **Svetlana Moiseeva**, National Research Tomsk State University, Russia*Moderator* – **Valentina Broner**, National Research Tomsk State University, Russia | ***Working languages: Russian*** |
| **15.30–17.50 (Tomsk)** |
| **10.00–11.20 (Moscow)** | [**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)**TRACK «QUEUING THEORY AND APPLICATION 7»***Chief*– **Svetlana Rozhkova**, National Research Tomsk Polytechnic University, Russia*Moderator –* **Ekaterina Lisovskaya**, Peoples’ Friendship University of Russia, Russia | ***Working language: Russian*** |
| **14.00–15.20 (Tomsk)** |

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| **December 2, 2020 / 2 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 1» / СЕКЦИЯ «Теория массового обслуживания 1»****13.00–15.00 (Moscow) / 17.00–19.00 (Tomsk)*****Working language: English***[***https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09***](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Chief*– Achyutha Krishnamoorthy, prof. CMS College, India*****Moderator – Svetlana Paul*, National Research Tomsk State University, Russia**  |
| *13.00–13.40 (Moscow)* | *Balasubramanian Krishna Kumar,**Amirthalingam Thanikachalam,**Rathinam Sankar,**Ramachandran Navaneetha Krishnan* | *Oscillating Service System Between Regular and Retrial Queues for Impatient Customers with Switch-off and Close-down Periods* |
| **17.00–17.40 (Tomsk)** |
| **13.40–14.00 (Moscow)** | *Dhanya Babu,**Varghese C. Joshua,**Achyutha Krishnamoorthy* | A Queueing System with Probabilistic Joining Strategy for Priority Customers |
| **17.40–18.00 (Tomsk)** |
| **14.00–14.20 (Moscow)** | *Resmi Thekkiniyedath,**Ravikumar K,**Lakshmy B* | Three-Server Queue with Consultations by Main Server with a Buffer at the Main Server |
| **18.00–18.20 (Tomsk)** |
| **14.20–14.40 (Moscow)** | *Abdul Rof V,**Achyutha Krishnamoorthy*  | A k-stage Queueing Inventory with Reduction Sale |
| **18.20–18.40 (Tomsk)** |
| **14.40–15.00 (Moscow)** | *Nisha Mathew,**Varghese C. Joshua,**Achyutha Krishnamoorthy* | On a MMAP/(PH,PH)/1/(∞,N) Queueing-Inventory System. |
| **18.40–19.00 (Tomsk)** |

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| **December 2, 2020 / 2 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 2» / СЕКЦИЯ «Теория массового обслуживания 2»****15.00–16.40 (Moscow) / 19.00–20.40 (Tomsk)**<https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09> ***Working language: English******Chief – Alexander Dudin, Belarusian State University, Belarus******Moderator – Olga Lizura, National Research Tomsk State University, Russia*** |
| **15.00–15.20 (Moscow)** | *Valentina Klimenok,**Alexander Dudin,**Ivan Vankovich* | Стационарные характеристики системы массового обслуживания с повторными вызовами и поиском на орбите |
| **19.00–19.20 (Tomsk)** |
| **15.20–15.40 (Moscow)** | *Anatoly Nazarov,**Tuan Phung-Duc,**Svetlana Paul,**Olga Lizyura,**Ksenia Shulgina* | Asymptotic Analysis of Markovian Retrial Queue with Unreliable Server and Two-Way Communication under Low Rate of Retrials Condition |
| **19.20–19.40 (Tomsk)** |
| **15.40–16.00 (Moscow)** | *Sandhya E,**Sreenivasan C,**Sajeev Nair* | An Explicit Solution for an Inventory Model with Positive Lead Time and Backlogs |
| **19.40–20.00 (Tomsk)** |
| **16.00–16.20 (Moscow)** | *Ranjith K R,**Achyutha Krishnamoorthy,**Gopakumar B* | Analysis of a PH/PH/1 queue with interdependence |
| **20.00–20.20 (Tomsk)** |
| **16.20–16.40 (Moscow)** | *Anilkumar M P,**Jose K. P.* | An Eigen Value Approach to a Discrete-Time Queueing Model with N-Policy on Two Modes of Service |
| **20.20–20.40 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 3» / СЕКЦИЯ «Теория массового обслуживания 3»****06.30–08.40 (Moscow) / 10.30–12.40 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working languages: Russian, English******Chief – Gurami Tsitsiashvili, Far Eastern Branch of Russian Academy of Sciences, Russia******Moderator – Ivan Lapatin, National Research Tomsk State University, Russia*** |
| **06.30–07.00 (Moscow)** | *Khanik Kerobyan,**Ruben Kerobyan* | Virtual waiting time in single server queuing model M|G|1 with unreliable server and carastrophes |
| **10.30–11.00 (Tomsk)** |
| **07.00–07.30 (Moscow)** | *Anatoly Nazarov,**Tuan Phung-Duc,**Yana Izmailova* | Asymptotic-diffusion analysis of multiserver retrial queueing system with priority customers |
| **11.00–11.30 (Tomsk)** |
| **07.30–08.00 (Moscow)** | *Gurami Tsitsiashvili,**Anatoly Nazarov,**Alexander Moiseev* | Асимптотическая оценка интенсивности сборки пуассоновских потоков |
| **11.30–12.00 (Tomsk)** |
| **08.00–08.20 (Moscow)** | *Ivan Lapatin,**Anatoly Nazarov,**Alexey Blaginin* | Исследование двумерного выходящего потока марковской модели узла обработки запросов с повторными обращениями и вызываемыми заявками |
| **12.00–12.20 (Tomsk)** |
| **08.20–08.40 (Moscow)** | *Agassi Melikov,**Sevinj Aliyeva,**Divya V* | Analyses of feedback queue with positive server setup time and impatient calls |
| **12.20–12.40 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 4» / СЕКЦИЯ «Теория массового обслуживания 4»****13.00–14.40 (Moscow) / 17.00–18.40 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working language: English******Chief – Tuan Phung-Duc, University of Tsukuba, Japan******Moderators –Olga Lizura, National Research Tomsk State University, Russia*** |
| **13.00–13.20 (Moscow)** |  |  |
| **17.00–17.20 (Tomsk)** |
| **13.20–13.40 (Moscow)** | *Beena P,**Jose K. P.* | A MAP/PH(1), PH(2)/2 Inventory System with Production, Multiple Servers and Vacations |
| **17.20–17.40 (Tomsk)** |
| **13.40–14.00 (Moscow)** | *Khamis Abdullah Khamis AL Maqbali,**Varghese C. Joshua,**Achyutha Krishnamoorthy* | On A Single Server Queueing Inventory System With Common Life Time For Inventoried Items |
| **17.40–18.00 (Tomsk)** |
| **14.00–14.20 (Moscow)** | *SMIJA SKARIA,**Sajeev Nair* | Transient Analysis of an Inventory Model with Instantaneous Replenishment and Catastrophes |
| **18.00–18.20 (Tomsk)** |
| **14.20–14.40 (Moscow)** | *Vadym Ponomarov* | The exact formulas for state-dependent Markov retrial queues |
| **18.20–18.40 (Tomsk)** |
| **14.40–15.00 (Moscow)** | *Achyutha Krishnamoorthy,**Varghese C. Joshua,**Ambily P. Mathew* | A Reliability Problem with Interdependent Lifetimes |
| **18.40–19.00 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 5» / СЕКЦИЯ «Теория массового обслуживания 5»****15.00–17.00 (Moscow) / 19.00–21.00 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working language: Russian******Chiefs – Michele Pagano, Pisa University, Italy*** ***Moderator – Maria Shklennik, National Research Tomsk State University, Russia*** |
| **15.00–15.20 (Moscow)** | *Vladimir Zadorozhnyi,**Michele Pagano,**Tatiana Zakharenkova* | Application of infinite markings methods to networks with packet switching |
| **19.00–19.20 (Tomsk)** |
| **15.20–15.40 (Moscow)** | *Stepan Rogozin,**Evsey Morozov* | Stability condition of a modified Erlang loss system with different service rates |
| **19.20–19.40 (Tomsk)** |
| **15.40–16.00 (Moscow)** | *Elmira Yu. Kalimulina* | On Convergence of Queuing Network with changing structure to stationary distribution |
| **19.40–20.00 (Tomsk)** |
| **16.00–16.20 (Moscow)** | *Hanna Livinska,**Eugene Lebedev* | Gaussian approximation and reducing of dimension for a general-type multichannel network |
| **20.00–20.20 (Tomsk)** |
| **16.20–16.40 (Moscow)** | *Vytovtov K.A.,**Barabanova E.A.,**Vishnevsky V.M.* | The Analytical Method For Analyzing a System, Continuous Time And Doubly Stochastic Poisson Flows |
| **20.20–20.40 (Tomsk)** |
| **16.40–17.00 (Moscow)** | *Vladimir Zadorozhnyi,**Tatiana Zakharenkova* | Infinite markings method in queueing systems with unknown service time for arriving requests |
| **20.40–21.00 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.****TRACK «INFORMATION TECHNOLOGIES AND SOFTWARE ENGINEERING 1» / СЕКЦИЯ «Информационные технологии и программная инженерия 1»****13.00–15.00 (Moscow) / 17.00–19.00 (Tomsk)**[**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)***Working language: Russian******Chiefs – Alexander Moiseev, National Research Tomsk State University, Russia*** ***Konstantin Voytikov, Moscow Institute of Physics and Technology, Russia******Moderator –* Alexey Shkurkin*, National Research Tomsk State University, Russia*** |
| **13.00–13.20 (Moscow)** | *Marat Gainutdinov* | Development of back-end of the service for internationalization of web applications |
| **17.00–17.20 (Tomsk)** |
| **13.20–13.40 (Moscow)** | *Yana Lebedeva,**Viacheslav Vavilov* | Разработка системы управления специальным банковским оборудованием |
| **17.20–17.40 (Tomsk)** |
| **13.40–14.00 (Moscow)** | *Igor Zhukov,**Kostyuk Yury* | Программная реализация заданий по программированию с многовариантными решениями |
| **17.40–18.00 (Tomsk)** |
| **14.00–14.20 (Moscow)** | *Yuliya Protasevich* | Поддержка настраиваемых типов проектов в системе автоматизации управления Git-репозиториями для использования в процессе обучения |
| **18.00–18.20 (Tomsk)** |
| **14.20–14.40 (Moscow)** | *Ruslan Ishtuganov* | Распределенные параллельные вычисления в экосистеме python с использованием |
| **18.20–18.40 (Tomsk)** |
| **14.40–15.00 (Moscow)** | *Ludmila Demidenko* | Проектирование базовой архитектуры модуля «Расписание» системы Alterum Med |
| **18.40–19.00 (Tomsk)** |

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| **December 3, 2020 / 3 декабря 2020 г.****TRACK «INFORMATION TECHNOLOGIES AND SOFTWARE ENGINEERING 2» / СЕКЦИЯ «Информационные технологии и программная инженерия 2»****15.00–17.00 (Moscow) / 19.00–21.00 (Tomsk)**[**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)***Working language: Russian******Chiefs – Alexander Moiseev, National Research Tomsk State University, Russia*** ***Konstantin Voytikov, Moscow Institute of Physics and Technology, Russia******Moderator –* Alexey Shkurkin*, National Research Tomsk State University, Russia*** |
| **15.00–15.20 (Moscow)** | *Елена Квач,**Aleksey Babanov* | «IS-A»-отношение, как способ представления взаимосвязи обобщенных и специализированных понятий |
| **19.00–19.20 (Tomsk)** |
| **15.20–15.40 (Moscow)** | *Jana Kulikova,**Kachalov Dmitry* | Сценарии управления беспилотными транспортными средствами в среде «Умного города» |
| **19.20–19.40 (Tomsk)** |
| **15.40–16.00 (Moscow)** | *Denis Zmeev* | О представлении прогресса проекта по разработке программного обеспечения в форме динамической байесовской сети |
| **19.40–20.00 (Tomsk)** |
| **16.00–16.20 (Moscow)** | *Евгения Соколова,**Tatyana Ketova* | Формальная модель образовательной программы в области компьютерных наук с точки зрения международного стандарта ACM и IEEE |
| **20.00–20.20 (Tomsk)** |
| **16.20–16.40 (Moscow)** | *Vadim Trenkaev* | Обзор исследований по проблеме достижения высокой производительности протокола OPC UA |
| **20.20–20.40 (Tomsk)** |
| **16.40–17.00 (Moscow)** | *Evgeny Polin,**Alexander Moiseev,**Konstantin Voytikov* | Имитационное моделирование СМО с входящими потоками, параметры которых зависят от состояния системы |
| **20.40–21.00 (Tomsk)** |

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| **December 4, 2020 / 4 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 6» / СЕКЦИЯ «Теория массового обслуживания 6»****08.00–11.00 (Moscow) / 12.00–15.00 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working language: Russian******Chiefs – Anatoly Nazarov, National Research Tomsk State University, Russia*** ***Andrei Zorine, Lobachevsky State University of Nizhni Novgorod, Russia******Moderator – Yana Izmailova, Ekaterina Pavlova, National Research Tomsk State University, Russia*** |
| **08.00–08.20 (Moscow)** | *Anatoly Nazarov,**Maria Samorodova* | Asymptotic waiting time analysis of a M/M/1 retrial queueing system |
| **12.00–12.20 (Tomsk)** |
| **08.20–08.40 (Moscow)** | *Anatoly Nazarov,**Ekaterina Pavlova* | Исследование СМО вида MMPP|M|N с обратной связью методом асимптотически диффузионного анализа |
| **12.20–12.40 (Tomsk)** |
| **08.40–09.00 (Moscow)** | *Сущенко С.П.,**Михеев П.А.,**Pavel Pristupa* | Прямая коррекция ошибок на внутрисегментном уровне транспортного протокола |
| **12.40–13.00 (Tomsk)** |
| **09.00–09.20 (Moscow)** | *Елена Станкевич,**Igor Tananko* | Приближенный метод анализа замкнутых сетей массового обслуживания с ненадежными системами и групповым обслуживанием |
| **13.00–13.20 (Tomsk)** |
| **09.20–09.40 (Moscow)** | *Елена Станкевич,**Igor Tananko* | Метод анализа замкнутых сетей массового обслуживания с системами типа Мa /M[x,y]/1 |
| **13.20–13.40 (Tomsk)** |

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| **December 4, 2020 / 4 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 6» / СЕКЦИЯ «Теория массового обслуживания 6»****08.00–11.00 (Moscow) / 12.00–15.00 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working language: Russian******Chiefs – Andrei Zorine, Lobachevsky State University of Nizhni Novgorod, Russia***  ***Anatoly Nazarov, National Research Tomsk State University, Russia******Moderator – Ekaterina Pavlova, National Research Tomsk State University, Russia*** |
| **09.40–10.00 (Moscow)** | *Andrei Zorine,**Kseniya Sizova* | Метод решения стационарных уравнений для процесса приоритетного обслуживания с разделением времени в случайной среде |
| **13.40–14.00 (Tomsk)** |
| **10.00–10.20 (Moscow)** | *Victoria Sannikova,**Ekaterina Proydakova* | Математическое моделирование и исследование приоритетной управляющей системы с непостоянной интенсивностью обслуживания требований |
| **14.00–14.20 (Tomsk)** |
| **10.20–10.40 (Moscow)** | *Maksim Zharkov,**Michael Pavidis* | Об использовании четырехфазных систем массового обслуживания для описания работы грузовых и сортировочных железнодорожных станций |
| **14.20–14.40 (Tomsk)** |
| **10.40–11.00 (Moscow)** | *Dzmitry Kopats* | Анализ ожидаемого дохода в открытой сети с ограниченным числом заявок и обходами ими систем обслуживания |
| **14.40–15.00 (Tomsk)** |

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| **December 4, 2020 / 4 декабря 2020 г.****TRACK «MATHEMATICAL MODELLING OF COMMUNICATION NETWORKS» / СЕКЦИЯ «Математическое моделирование телекоммуникационных сетей»****11.30–13.50 (Moscow) / 15.30–17.50 (Tomsk)**[**https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09**](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Working languages: English, Russian******Chiefs – Janos Sztrik, University of Debrecen, Hungary*** ***Sergey Suschenko, National Research Tomsk State University, Russia******Moderators – Elena Danilyuk, National Research Tomsk State University, Russia*** ***Ekaterina Lisovskaya, Peoples’ Friendship University of Russia, Russia*** |
| **11.30–11.50 (Moscow)** | *János Sztrik,**Tóth Ádám* | Some special features of finite-source retrial queues with collisions, an unreliable server and impatient customers in the orbit |
| **15.30–15.50 (Tomsk)** |
| **11.50–12.10 (Moscow)** | *Tóth Ádám,**János Sztrik,**Elena Danilyuk,**Svetlana Moiseeva* | Simulation of retrial queueing system M/G/1 with impatient customers, collisions and unreliable server |
| **15.50–16.10 (Tomsk)** |
| **12.10–12.30 (Moscow)** | *Anastasia Daraseliya,**Eduard Sopin* | Optimization of task offloading thresholds in the fog computing system |
| **16.10–16.30 (Tomsk)** |
| **12.30–12.50 (Moscow)** | *Eduard Sopin,**Maxim Korshikov* | Analysis of the processor sharing systems with random serving rate coefficients |
| **16.30–16.50 (Tomsk)** |
| **12.50–13.10 (Moscow)** | *Mohamed Hedi Zaghouani,**Hamza Nemouchi,**János Sztrik* | Simulation analysis in cognitive radio networks with unreliability and abandonment |
| **16.50–17.10 (Tomsk)** |
| **13.10–13.30 (Moscow)** | *Kirill Ageev,**Eduard Sopin* | Analysis of the Simplified Network Slicing Model |
| **17.10–17.30 (Tomsk)** |
| **13.30–13.50 (Moscow)** | *Yves Adou,**Ekaterina Markova* | To queueing system model performance measures analysis under network slicing |
| **17.30–17.50 (Tomsk)** |
| **December 4, 2020 / 4 декабря 2020 г.****TRACK «INTELLIGENT DATA ANALYSIS AND VISUALIZATION» / СЕКЦИЯ «Интеллектуальный анализ данных и визуализация»****11.00–15.00 (Moscow) / 15.00–19.00 (Tomsk)**<https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09>***Working language: Russian******Chiefs – Mais Farhadov, Institute of Control Sciences, Russian Academy of Sciences, Russia*** ***Daria Semenova, Siberian Federal University, Russia******Moderator – Ivan Lapatin, National Research Tomsk State University, Russia*** |
| **11.00–11.20 (Moscow)** | *Aleksandr Soldatenko,**Daria Semenova* | Алгоритм HGFC нахождения формальных понятий |
| **15.00–15.20 (Tomsk)** |
| **11.20–11.40 (Moscow)** | *Irina Baranova* | Применение метода двудольных множеств событий в задачах регрессионного анализа многомерных разнотипных данных |
| **15.20–15.40 (Tomsk)** |
| **11.40–12.00 (Moscow)** | *Yuri Gagarin,**Gagarina Svetlana* | Прогнозирование частных показателей индекса активного долголетия |
| **15.40–16.00 (Tomsk)** |
| **12.00–12.20 (Moscow)** | *Inna Batraeva,**Aleksandra Kriuchkova* | Алгоритм репрезентации кастомизированных диалектологических корпусов для Саратовского диалектологического корпуса русского языка |
| **16.00–16.20 (Tomsk)** |
| **12.20–12.40 (Moscow)** | *Alyona Borisovskaya* | Methods of spelling correction in information retrieval systems |
| **16.20–16.40 (Tomsk)** |
| **12.40–13.00 (Moscow)** | *Сергей Смирнов,**Анна Ивлева* | Первичный концептуальный анализ сестринского дела для экспертной советующей системы |
| **16.40–17.00 (Tomsk)** |

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| **December 4, 2020 / 4 декабря 2020 г.****TRACK «INTELLIGENT DATA ANALYSIS AND VISUALIZATION» / СЕКЦИЯ «Интеллектуальный анализ данных и визуализация»****11.00–15.00 (Moscow) / 15.00–19.00 (Tomsk)**<https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09>***Working language: Russian******Chiefs – Mais Farhadov, Institute of Control Sciences, Russian Academy of Sciences, Russia*** ***Daria Semenova, Siberian Federal University, Russia******Moderator – Ivan Lapatin,, National Research Tomsk State University, Russia*** |
| **13.00–13.20 (Moscow)** | *Ivan Brokarev,**Mais Farkhadov,**Sergey Vaskovskii* | Recurrent neural networks to analyze the quality of natural gas |
| **17.00–17.20 (Tomsk)** |
| **13.20–13.40 (Moscow)** | *Ivan Brokarev,**Sergey Vaskovskii* | Analysis of reliability of gas analysis system based on vector Wiener process |
| **17.20–17.40 (Tomsk)** |
| **13.40–14.00 (Moscow)** | *Victoria Shamraeva* | BIM modeling of transport infrastructure objects |
| **17.40–18.00 (Tomsk)** |
| **14.00–14.20 (Moscow)** | *Ellada Ibragimova,**Daria Semenova* | Recognition of k-clusterability of signed graphs |
| **18.00–18.20 (Tomsk)** |
| **14.20–14.40 (Moscow)** | *Valeriy Golyshev,**Daria Semenova* | Fuzzy formal concept analysis: α-cut method |
| **18.20–18.40 (Tomsk)** |
| **14.40–15.00 (Moscow)** | *Stepan Gilin* | Решение задачи распознавания образов при помощи алгоритма гибридной СММ-нейросети |
| **18.40–19.00 (Tomsk)** |

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| **December 5, 2020 / 5 декабря 2020 г.****TRACK «MATHEMATICAL AND COMPUTER MODELLING OF TECHNOLOGICAL PROCESSES» / СЕКЦИЯ «Математическое и компьютерное моделирование технологических процессов»****08.00–14.00 (Moscow) / 12.00–18.00 (Tomsk)**<https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09>***Working language: Russian******Chiefs – Anton Voitishek, Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Russia*** ***Svetlana Moiseeva, National Research Tomsk State University, Russia******Moderator – Valentina Broner, National Research Tomsk State University, Russia*** |
| **08.00–08.20 (Moscow)** | *Anton Voytishek* | Об особенностях выбора апроксимационных ортонормированных базисов в рандомизированных численных проекционных функциональных алгоритмах |
| **12.00–12.20 (Tomsk)** |
| **08.20–08.40 (Moscow)** | *Anton Voytishek* | Система численного моделирования одномерных случайных величин NMPUD: формирование банка плотностей, автоматизация математических выкладок и приложения |
| **12.20–12.40 (Tomsk)** |
| **08.40–09.00 (Moscow)** | *Nikita Belyakov,**Dmitry Fedchenko,**Rustam Bikmurzin* | Automata, graphs, quasigroups |
| **12.40–13.00 (Tomsk)** |
| **09.00–09.20 (Moscow)** | *Serguei Pitchouguine* | Problem Definition for LEO System Switching Technique Development |
| **13.00–13.20 (Tomsk)** |
| **09.20–09.40 (Moscow)** | *Irina Gendrina* | Использование метода фиктивных переменных для исследования пространственной характеристики систем видения через атмосферу |
| **13.20–13.40 (Tomsk)** |
| **09.40–10.00 (Moscow)** | *Shakhmurad Kanzitdinov,**Sergey Vasilyev,**Kassy Dougg Feussy Warren,**Michelle Beugre* | Stability analysis and motion of the Kapitsa pendulum |
| **13.40–14.00 (Tomsk)** |
| **December 5, 2020 / 5 декабря 2020 г.****TRACK «MATHEMATICAL AND COMPUTER MODELLING OF TECHNOLOGICAL PROCESSES» / СЕКЦИЯ «Математическое и компьютерное моделирование технологических процессов»****08.00–14.00 (Moscow) / 12.00–18.00 (Tomsk)**<https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09>***Working language: Russian******Chiefs – Anton Voitishek, Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Russia*** ***Svetlana Moiseeva, National Research Tomsk State University, Russia******Moderator – Valentina Broner, National Research Tomsk State University, Russia*** |
| **10.00–10.20 (Moscow)** | *Mohamed Adel Bouatta,**Vyacheclav Fedorchenko,**Sergey Vasilyev* | Численный анализ на адаптивных сетках многомерного уравнения Фоккера-Планка с малым параметром |
| **14.00–14.20 (Tomsk)** |
| **10.20–10.40 (Moscow)** | *Sergey Vasilyev,**Daniel Peres Acosta,**Shakhmurad Kanzitdinov,**Igor Levichev* | Построение решений задач оптимального управления динамическими системами в бесконечномерных пространствах с малым параметром |
| **14.20–14.40 (Tomsk)** |
| **10.40–11.00 (Moscow)** | *Mohamed Adel Bouatta,**Darya Vasilyeva,**Irina Kolosova,**Evgeniya Korshok* | Kadyshevsky equation numerical analysis with periodic boundary conditions on adaptive grids |
| **14.40–15.00 (Tomsk)** |
| **11.20–11.40 (Moscow)** | *Maria Shklennik,**Alexander Moiseev* | Реализация механизма сбора и обработки статистических данных потоков заявок в системе имитационного моделирования ODIS |
| **15.20–15.40 (Tomsk)** |
| **11.40–12.00 (Moscow)** | *Jozil Takhirov* | A reaction-diffusion-advection competition model with a free boundary |
| **15.40–16.00 (Tomsk)** |
| **12.00–12.20 (Moscow)** | *Владислав Литвинов* | Research of transverse rope oscillations moving in the longitudinal direction |
| **16.00–16.20 (Tomsk)** |

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| **December 5, 2020 / 5 декабря 2020 г.****TRACK «MATHEMATICAL AND COMPUTER MODELLING OF TECHNOLOGICAL PROCESSES» / СЕКЦИЯ «Математическое и компьютерное моделирование технологических процессов»****08.00–14.00 (Moscow) / 12.00–18.00 (Tomsk)**[**https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09**](https://us02web.zoom.us/j/84578994497?pwd=WVV5RGVyYjVLSGpMQ0E4RUFkWGs2dz09)***Working language: Russian******Chiefs – Anton Voitishek, Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Russia*** ***Svetlana Moiseeva, National Research Tomsk State University, Russia******Moderator – Valentina Broner, National Research Tomsk State University, Russia*** |
| **12.20–12.40 (Moscow)** | *Olga Kuzovatova* | Компьютерное моделирование локализации деформации сыпучей среды в сходящемся канале |
| **16.20–16.40 (Tomsk)** |
| **12.40–13.00 (Moscow)** | *Viacheslav Kuvykin,**Maksim Bryukhanov* | Математическое и компьютерное моделирование системы согласования материального баланса в нефтепереработке и нефтехимии |
| **16.40–17.00 (Tomsk)** |
| **13.00–13.20 (Moscow)** | *Viacheslav Kuvykin,**Elena Kolpakova,**Artem Kolpakov* | Параметрический анализ математических моделей оптимального планирования нефтепереработки и компьютерное моделирование |
| **17.00–17.20 (Tomsk)** |
| **13.20–13.40 (Moscow)** | *Anton Esin* | Теоретические аспекты построения современных систем управления на базе многозначной логики |
| **17.20–17.40 (Tomsk)** |
| **13.40–14.00 (Moscow)** | *Anton Esin* | Исследование принципов применения моделей многозначной логики в современных приложениях |
| **17.40–18.00 (Tomsk)** |

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| **December 5, 2020 / 5 декабря 2020 г.****TRACK «QUEUING THEORY AND APPLICATION 7» / СЕКЦИЯ «Теория массового обслуживания 7»****10.00–11.20 (Moscow) / 14.00–15.20 (Tomsk)*****Working language: Russian***[***https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09***](https://us04web.zoom.us/j/8967702999?pwd=bXAwWUVIWFlzSzdzdVVMSG9QTHYxdz09)***Chief – Svetlana Rozhkova, National Research Tomsk Polytechnic University, Russia******Moderator – Ekaterina Lisovskaya, Peoples’ Friendship University of Russia, Russia*** |
| **10.00–10.20 (Moscow)** | *Anna Boyarkina,**Svetlana Moiseeva,**Irina Turenova,**Alexey Shkurkin* | СМО вида GI(K)/GI/∞ с групповым обслуживанием |
| **14.00–14.20 (Tomsk)** |
| **10.20–10.40 (Moscow)** | *Faina Moskaleva,**Ekaterina Lisovskaya,**Yuliya Gaidamaka* | A Two-Class Service System for Performance Analysis of Network Slicing with QoS Isolation |
| **14.20–14.40 (Tomsk)** |
| **10.40–11.00 (Moscow)** | *Svetlana Rozhkova,**Nataliya Voronina,**Alexandra Semashko* | Асимптотический анализ rq-системы м/м/1 с ненадежным прибором мегаматричным методом |
| **14.40–15.00 (Tomsk)** |
| **11.00–11.20 (Moscow)** | *Anatoly Nazarov,**Svetlana Rozhkova,**Ekaterina Titarenko* | Исследование системы c обратной связью, рекуррентным обслуживанием и неординарным пуассоновским входящим потоком |
| **15.00–15.20 (Tomsk)** |
| **11.20–11.40 (Moscow)** | *Татьяна Бушкова,**Svetlana Moiseeva,**Ekaterina Lisovskaya,**Anastasia Galileyskaya* | Асимптотический анализ ресурсной гетерогенной СМО (MMPP+2M)(ν)/M/∞ |
| **15.20–15.40 (Tomsk** |