

**ФГАОУ ВО «Севастопольский государственный университет»  
ФГАОУ ВО «Национальный исследовательский технологический  
университет «МИСиС»»  
ФГБОУ ВО «Алтайский государственный технический университет  
им. И.И. Ползунова»**

*Конференция проводится при финансовой поддержке  
Российского Фонда Фундаментальных Исследований  
(грант №18-08-20074)*

**МЕЖДУНАРОДНАЯ НАУЧНО-ТЕХНИЧЕСКАЯ  
КОНФЕРЕНЦИЯ  
«СОВРЕМЕННЫЕ НАПРАВЛЕНИЯ И ПЕРСПЕКТИВЫ РАЗВИТИЯ  
ТЕХНОЛОГИЙ ОБРАБОТКИ И ОБОРУДОВАНИЯ В  
МАШИНОСТРОЕНИИ 2018»**

*INTERNATIONAL CONFERENCE  
ON MODERN TRENDS IN MANUFACTURING TECHNOLOGIES AND  
EQUIPMENT 2018*

*Севастополь  
10 – 14 сентября 2018 г.*

**НАУЧНАЯ ПРОГРАММА**

**SCIENTIFIC PROGRAM**

## Международный программный комитет

**Председатель:** Новосёлов Ю.К., д.т.н., проф. ФГАОУ ВО «Севастопольский государственный университет» (Россия)

**Сопредседатели:**

Абдулгизис У.А., д.т.н., проф., ГБОУ ВО РК «Крымский инженерно-педагогический университет» (Россия)

Михайлов А.Н., д.т.н., проф., ГОУ ВПО «Донецкий национальный технический университет» (Донецк, ДНР)

**Члены программного комитета:**

Дююн Т.А., д.т.н., проф. (БГТУ им. Шухова, Белгород)

Prof. G. Bahadirov (IMSS named after Urazbaeva, UZB)

Prof. A. Buchacz (Silesian Technical University, POL)

Prof. N. Danijarov (Karaganda St. Tech. Un., KAZ)

Новосёлов Ю.К., д.т.н., проф. (СевГУ, Севастополь)

Харченко А.О., к.т.н., проф. (СевГУ, Севастополь)

Бохонский А.И., д.т.н., проф. (СевГУ, Севастополь)

Покинтелица Н.И., д.т.н., проф. (СевГУ, Севастополь)

Prof. R. Giniavichus (Vilnius Gediminas Tech. Un., LTU)

Assoc. prof. A. Giutuni (Tunis Tech. University, TUN)

Хейфец М.Л., д.т.н., проф. (НАН Беларуси, Минск)

Хандожко А.В., д.т.н., проф. (БГТУ, Брянск)

Assoc. prof. G-J. Jasper (Plymouth University, GBR)

Prof. R. Kasper (OVG University Magdeburg, DEU)

Prof. S. Khristoforian (St. Eng.Un. of Armenia, ARM)

Барсуков Г.В., д.т.н., проф. (ОГУ, Орёл)

Prof. O. Pruteanu (Tech. Un. "Gh. Asachi", ROU)

Prof. M. Radovanovic (Tech. Un. of Nis, SRB)

Prof. A. Точа (Technical University Moldova, MDA)

Assos. prof. A. Srivastava (Sham. In. of Eng. and Techn. IND)

Assoc. prof. K. Monkova (Tech. University Kosice, SVK)

Мерсон Д.Л., д.ф.-м. н., проф. (ТГУ, Тольятти)

Prof. Z. Sharifov (Azerbaijan Technical. University, AZE)

Козлов А.М., д.т.н., проф. (ЛГТУ, Липецк)

Суслов А.Г., д.т.н., проф. (МГТУ им. Н. Э. Баумана)

Гусев В.В., д.т.н., проф. (ДонНТУ, Донецк)

Якубов Ф.Я., д.т.н., проф. (КИПУ, Симферополь)

Маликов А.А., д.т.н., проф. (ТулГТУ, Тула)

Носенко В.А., д.т.н., проф. (ВолгГТУ, г.Волжский)

Языев Б.М., д.т.н., проф. (ДонНТУ, Ростов-на-Дону)

Коротков А.В., д.т.н., проф. (КузГТУ, Кемерово)

Литвинов С.В., к.т.н., доцент (ДонНТУ, Ростов-на-Дону)

**Организационный комитет конференции  
(редакционная коллегия)**

***Председатель:***

**Братан С.М.**, д.т.н., профессор, ФГАОУ ВО «Севастопольский государственный университет», Севастополь

***Сопредседатели:***

**Горбатьюк С.М.**, д.т.н., профессор, НИТУ «МИСиС», (Москва)

**Леонов С.Л.**, д.т.н., профессор, ФГБОУ ВПО «Алтайский государственный технический университет им. И.И. Ползунова», (Барнаул)

**Глезер А.М.**, д.ф.-м.н., профессор, НИТУ «МИСиС» (Москва)

***Ученый секретарь:* Рощупкин С.И.**, к.т.н., доц., СевГУ

***Члены оргкомитета:***

**ФГАОУ ВО «Севастопольский государственный университет»:**

Богущий В.Б., к.т.н., доц.

Левченко Е.А., к.т.н., доц.

Новиков П.А., к.т.н., доц.

Тараховский А.Ю., к.т.н., доц.

Колесов А.Г., к.т.н., доц.

Владецкая Е.А., к.т.н., доц.

Пянковская. М.В., аспирант.

**УВАЖАЕМЫЕ КОЛЛЕГИ!**

Приглашаем Вас принять участие в Международной научно-технической конференции

**«СОВРЕМЕННЫЕ НАПРАВЛЕНИЯ И ПЕРСПЕКТИВЫ РАЗВИТИЯ  
ТЕХНОЛОГИЙ ОБРАБОТКИ И ОБОРУДОВАНИЯ  
В МАШИНОСТРОЕНИИ 2018 (ICMTMTE 2018)»**

Работа конференции направлена на предоставление возможности для учёных и представителей производства обобщить результаты последних достижений в области технологий производства изделий из всех типов материалов, промышленного оборудования и инструмента, обсудить направления развития новой техники и технологий, установить полезные связи между партнёрами для будущего взаимодействия.

Конференция проводится с 10 по 14 сентября 2018 г. на базе ФГАОУ ВО «Севастопольский государственный университет»: конференц-зал университета, поточно-лекционные аудитории.

**Контактные телефоны**

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***Адрес организационного комитета:***

299053, г. Севастополь, ул. Университетская, 33, ФГАОУ ВО «Севастопольский государственный университет», оргкомитет конференции «Современные направления и перспективы развития технологий обработки и оборудования в машиностроении».

**К СВЕДЕНИЮ УЧАСТНИКОВ**

**ПРИБЫТИЕ** участников конференции 10 сентября 2018 г.

**РЕГИСТРАЦИЯ** участников 10 сентября (с 9.00 до 18.00) и 11 сентября (с 8.30 до 9.00) 2018 г. по адресу: г. Севастополь, ул. Гоголя, 14, главный холл.

**ПРОЕЗД** от автовокзала троллейбусами № 4, 17, 20, маршрутными автобусами № 17, 20, 25, 26 до остановки «Университет».

## Порядок работы конференции

### **10 сентября, понедельник**

9.00-18.00 – Прибытие, регистрация, размещение участников конференции

### **11 сентября, вторник**

8.30-9.00 – Регистрация участников

9.00-11.00 – Пленарное заседание

11:00-11.30 – *Перерыв на кофе*

11.30-13.10 – Пленарное заседание

13.10- 14.00 – *Перерыв на обед*

14.00-15.40 – Пленарное заседание

17.00-18.30 – Морская прогулка на теплоходе «Доброход» по Севастопольской бухте.

### **12 сентября, среда**

09.00-11.00 – Секционные заседания

11.00-11.30 – *Перерыв на кофе*

11.30-13.00 – Секционные заседания

13.00-14.00 – *Перерыв на обед*

14.00-16.00 – Секционные заседания

16.00-16.30 – *Перерыв на кофе*

16.30-19.15 – Секционные заседания

### **13 сентября, четверг**

09.00-11.00 – Секционные заседания

11.00-11.30 – *Перерыв на кофе*

11.30-13.00 – Секционные заседания

13.00-14.00 – *Перерыв на обед*

14.00-16.00 – Секционные заседания

16.00-16.30 – *Перерыв на кофе*

16.30-18.00 – Секционные заседания

18.30 – Банкет

### **14 сентября, пятница**

9.00-10.00 – Заключительное пленарное заседание.

Закрытие конференции.

Выезд участников конференции

**Рабочие языки** – русский, английский

## Регламент

Продолжительность *пленарных докладов* – 25 минут, включая ответы на вопросы.

Продолжительность *устных докладов* – 15 минут, включая ответы на вопросы.

*Стендовые доклады* – в формате А1 (вертикальное или горизонтальное расположение).

## Программа конференции

**11 сентября, вторник**

### ПЛЕНАРНОЕ ЗАСЕДАНИЕ

АКТОВЫЙ ЗАЛ 9.00 – 15.40

9:00 Открытие конференции:

- **Нечаев Владимир Дмитриевич.** Приветственное слово ректора Севастопольского государственного университета
- **Братан Сергей Михайлович.** Приветственное слово председателя организационного комитета конференции. Информация о работе конференции

9:20 ПЛ-1 Wang Yanhu, Konovalov Sergey, Chen Xizhang

Effect of applied load on welding stress at different time periods

9:45 ПЛ-2 Alexander Glezer

Modern materials strengthening techniques by extreme effects

10:10 ПЛ-3 Zakaria Boumerzoug

Joining of Dissimilar Materials by Friction Stir Welding

10:35 ПЛ-4 Vladimir Nosenko

Grinding of titanium-based alloys

*Перерыв на кофе*

11:30 ПЛ-5 Dervis Ozkan, Mustafa Sabri Gok, Mecit Oge, Abdullah Cahit Karaoglanli

Milling Behavior Analysis of Carbon Fiber-Reinforced Polymer (CFRP) Composites

11:55 ПЛ-6 Anatoly Suslov, Oleg Fedonin, Dmitry Petreshin

Forming and developing engineering technology as a science

12:20 ПЛ-7- George Kotiev, Aleksey Diakov

Establishment of production of special wheel and track technology for extreme natural-climate conditions of the Arctic

12:45 ПЛ-8 Vladislav Lavrinenko, Anastasiya Polyakova, Artyom Polyakov

Analysis of the applicability of die pressing method for ring-shaped parts fabrication

*Перерыв на обед*

14:00 ПЛ-9 Yury Panfilov, Leonid Kolesnik

Vacuum methods of surface treatment with subnanometer roughness

14:25 ПЛ-10 Nikolai Muliukhin, Dmitriy Lobanov, Vladimir Grigoriev, Viktor Gartfelder

Computer-aided design of resonance-free vibration systems

14:50 ПЛ-11 Sergey Kondakov, Aleksandr Dyakonov, Nikita Dubrovskiy

Simulation modeling of the curvilinear motion of an industrial tractor with a differential rotation mechanism and tracking trajectory stabilization system

15:15 ПЛ-12 Aleksey Diakov

Научные методы разработки ходовых систем высокоподвижных безэкипажных наземных транспортных средств

**СЕКЦИЯ № 1**  
**ПЕРСПЕКТИВНЫЕ ТЕХНОЛОГИИ И ПРОЦЕССЫ ОБРАБОТКИ**  
**МАТЕРИАЛОВ. ОБОРУДОВАНИЕ И ИНСТРУМЕНТ**

**ПЕРВОЕ ЗАСЕДАНИЕ**

**12 сентября, среда**

Актовый зал 9.00 – 19.15

Руководители: Братан С.М., д.т.н., проф.  
 Тараховский А.Ю., к.т.н., доцент

- 9:00 У 1.1 ***O. Berdnik, I. Tsareva, L. Krivina, Y. Tarasenko***  
 Development of a modern comprehensive technology for extending the life of turbine blades of SGT Siemens power plants and alike
- 9:15 У 1.2 ***A.M. Makarov, O.V. Mushkin, M.A. Lapikov***  
 Use of additive technologies to increase effectiveness of design and use of a vacuum gripping devices for flexible containers
- 9:30 У 1.3 ***T. Burchenkova, V. Slavkina, V. Nelub***  
 Modern technologies for the production of composites based on inorganic binders
- 9:45 У 1.4 ***V. Shuvaev, N. Krylova***  
 The formation of the quality parameters of the surface layer by ultrasonic
- 10:00 У 1.5 ***V. Svinin, A. Samsonov, A. Savilov, A. Pyatykh***  
 Self-oscillations suppression when turning the non-rigid shafts by the spring cutter and the spring headstock center
- 10:15 У 1.6 ***D. Starodubtseva, Vinh Le Tri, V. Koltsov***  
 Formation of the surface roughness during grinding with flap wheels after shot peening
- 10:30 У 1.7 ***E.V. Artamonov, V.V. Kireev, V.A. Zyryanov***  
 An interlocking side mill with retrofittable carbide blades for processing of coarse-pitch tooth wheels
- 10:45 У 1.8 ***E.V. Artamonov, A.M. Tveryakov, A.S. Shtin***  
 Determination of maximum working capacity of retrofittable cutters on the basis of physical-mechanical features of tool hard alloys
- Перерыв на кофе*
- 11:30 У 1.9 ***V. Masyagin, R. Bazhenov, R. Artyukh***  
 Calculation of the linear technological sizes with adaptation
- 11:45 У 1.10 ***S. Gorbatyuk, V. Kondratenko, L. Sedykh***  
 Tool stability analysis for deep hole drilling
- 12:00 У 1.11 ***P. Pereverzev, A. Akintseva, M. Alsigar***  
 Improvement of the quality of designed cylindrical grinding cycle with traverse feeding based on the use of digital twin options
- 12:15 У 1.12 ***I. Zybin, K. Trukhanov, A. Tsarkov, S. Kheylo***  
 Backing Plate Effect on Temperature Controlled FSW Process
- 12:30 У 1.13 ***A. Korotkov, V. Korotkov***  
 Grinding tools made of grains with controlled shape and orientation

- 12:45 Y 1.14 **P. Pereverzev, A. Akintseva, M. Alsigar**  
Impact of Metal Removal Features in the Reverse Zones on Shaping of the Machined Surface in the Process of Cylindrical Grinding with Traverse Feed

*Перерыв на обед*

- 14:00 Y 1.15 **C. Yakubov, R. Dzhemalyadinov, V. Skakun**  
Improving material cutting by application of natural origin oil.
- 14:15 Y 1.16 **A.E. Seleznev, A. Smirnov, P.Yu. Peretyagin**  
The influence of hydrojet surface processing on the adhesive strength of wear-resistant coatings deposited on a metal-cutting tool of oxynitride ceramics
- 14:30 Y 1.17 **V. Kuts, I.Kiselev, S. Voronov**  
Vibrations reduction in milling by using singular spectral analysis
- 14:45 Y 1.18 **D. Abdulgazis, E. Umerov, U. Abdulgazis**  
Analysis of mathematical models of drilling describing surface quality and tool overload protection aspects
- 15:00 Y 1.19 **I. Ivanov, I. Pleshcheev, A. Larkin**  
Vibratory drilling with digital adaptive control
- 15:15 Y 1.20 **R.Yu. Nekrasov, U.S. Putilova, Yu.A. Tempel**  
Precision CNC machining and ways to achieve it
- 15:30 Y 1.21 **N. Zhukov, V. Kuts, B. Suldin**  
Investigation of the plain milling process dynamic stability taking into account the contact interaction on the flank face of the cutting wedge
- 15:45 Y 1.22 **V.S. Tynchenko, V.E. Petrenko, A.V. Murygin**  
Control of the induction soldering on the basis of process temperature indirect measurements

*Перерыв на кофе*

- 16:30 Y 1.23 **V. Krutsilo, N. Papsheva, O. Akushskaya**  
The field of rational application of the methods of hardening treatment
- 16:45 Y 1.24 **I. Lutoshkin, A. Madanov, Y. Polyanskov**  
Model of control over cutting tool demand in a machining shop
- 17:00 Y 1.25 **I. Kiselev, N. Jukov, K. Deev**  
Automated block-by-block correction of milling parameters by means of numerical simulation
- 17:15 Y 1.26 **I. Kotenko, I. Saenko, A. Branitskiy**  
Improving the performance of manufacturing technologies for advanced material processing using a Spark-based big data and machine learning framework
- 17:30 Y 1.27 **D. Aleynikov, A. Lukyanov, A. Savilov, D. Paikin**  
Investigation of cutting forces oscillation when high productivity milling
- 17:45 Y 1.28 **A.A. Udalov, S.V. Parshin, A.V. Udalov**  
Theoretical investigation of the effect of the taper angle of the deforming roller on the limiting degrees of deformation in the process of flow forming
- 18:00 Y 1.29 **E. Rybalkin, E. Yagyayev, L. Shron, V. Bogutsky**  
Mathematical model of a non-stationary electromagnetic process in arc welding with external influence
- 18:15 Y 1.30 **V. Bogutsky, Y. Novoselov, L. Shron**  
Calculating the profile of intermittent grinding wheel for the sharpening teeth of the broach
- 18:30 Y 1.31 **O. Kirillov, V. Smolentsev, S. Yukhnevich**  
The technology of combined processing of extruded materials



- 18:45 У 1.32 **K. Rakhimyanov, V. Yanpolskiy, R. Kadyrbaev**  
Forming the structure and properties of the loaded layer in abrasive discs during grinding carbon steels
- 19:00 У 1.33 **S. Bratan, E. Vladetskaya**  
Flat Grinding Model, Considering Internal Dynamics of the Process

## ВТОРОЕ ЗАСЕДАНИЕ

**13 сентября, четверг**

АКТОВЫЙ ЗАЛ 9.00 – 18.00

Руководители: Харченко А.О. к.т.н., проф.  
Новиков П.А., к.т.н., доцент

- 9:00 У 1.34 **V. Gileta, A. Beznedelnyy**  
The mechanism of wearing of the hard alloy tool under ultrasonic reinforcing finishing treatment
- 9:15 У 1.35 **Kh. Rakhimyanov, V. Marusina**  
Perspectives of the industrial recycling of hard-alloy materials waste by electro-erosive grinding
- 9:30 У 1.36 **A. Rakhimyanov, A. Loktionov, N. Gaar**  
Technological possibilities of high-precision plasma cutting in processing materials of different class
- 9:45 У 1.37 **K. Rakhimyanov, M. Ivanova, S. Vasilevskaya**  
Anodic behavior of amorphous and nanocrystal alloys during the electrochemical processing
- 10:00 У 1.38 **M. Burnashov, A. Prezhbilov**  
Optimization of modes for processing water-ice cleaning of machine parts
- 10:15 У 1.39 **A. Pishchukhin, G. Akhmedyanova**  
Multidimensional analysis of monitoring and diagnostic information on the technological process
- 10:30 У 1.40 **N.V. Nesterov, B.S. Vorontsov**  
Development and improvement of lost foam casting technology based on mathematical modeling
- 10:45 У 1.41 **А.Г. Тарабрин, С.А. Нестеров, А.Е. Зверовщиков**  
Повышение эффективности программирования пятикоординатной обработки моноколес турбин на основе применения современных CAD/CAM технологий
- Перерыв на кофе*
- 11:30 У 1.42 **A. Zverovshchikov, V. Zverovshchikov, S. Nesterov**  
Comprehensive ensuring of quality of surfaces of details at centrifugal-planetary volume processing.
- 11:45 У 1.43 **O. Kovalev**  
Comparative analysis of performance characteristics of nozzle heads for powder transportation in a laser cladding and direct material deposition
- 12:00 У 1.44 **E. Nesterenko, A. Kuzin**

90 degrees two-angle bending method with due to blank's elastic spring back properties

- 12:15 Y 1.45 **R. Nekrasov, A. Galinskii, O. Tempel**  
Stellite surfacing technology
- 12:30 Y 1.46 **A. Starikov, U. Putilova, O. Tempel**  
Determination of machining errors caused by dynamic deformations from process equipment
- 12:45 Y 1.47 **V.I. Guzeev, D.Yu. Pimenov**  
Methodology of designing integrated technological processes for manufacturing CNC machined parts

*Перерыв на обед*

- 14:00 Y 1.48 **Ya. Soler, Mai Dinh Si, D.Yu. Kazimirov**  
Contact Ability Optimization of the Surface of Titanium Parts with Different Stiffness during Flat Grinding by Highly Porous Wheel
- 14:15 Y 1.49 **A.V. Balaykin, R.A. Vdovin, E.M. Dobryshkina**  
Analysis of Possibilities of High-Speed Prototyping Technology in Hot Section Manufacturing
- 14:30 Y 1.50 **N.V. Nosov**  
Surface quality study based on quasi-optimal correlation algorithms
- 14:45 Y 1.51 **N.V. Nosov, A.A. Cherepashkov**  
Features of technological basing in machining parts on CNC machines
- 15:00 Y 1.52 **S. Gorbatyuk, V. Kondratenko, L. Sedykh**  
Investigation of the deep hole drill stability when using a steady rest
- 15:15 Y 1.53 **P.A. Nikishechkin, N.Yu. Chervonnova, A.N. Nikich**  
Approach to the construction of specialized portable terminals for monitoring and controlling technological equipment
- 15:30 Y 1.54 **I. Telegin, T. Shumilova**  
Comparing the efficiency of flowsheets for hot die forging on crank presses
- 15:45 Y 1.55 **L.V. Chuchkova, E.A. Lozhkina, D.S. Ovdina**  
Structural features of the alloyed layers formed by electron beam melting in the air atmosphere

*Перерыв на кофе*

- 16:30 Y 1.56 **M. Bolotov, I. Grachev, E.Kudashov**  
Investigation of assembly uncertainty of parts, taking into account the deviation of the shape of their surfaces
- 16:45 Y 1.57 **L.I. Martinova, N.N. Fokin**  
An approach to creation of a unified system of programming CNC machines in the dialog mode
- 17:00 Y 1.58 **V.A. Nekit, S.I. Platov, M.L. Krasnov**  
The nature of the change of the surface temperature of the workpiece during hot rolling of pipe steel
- 17:15 Y 1.59 **A.K. Belan, V.A. Nekit, O.A. Belan**  
The simulation of cold volumetric stamping by the method of transverse extrusion
- 17:30 Y 1.60 **V. Mironenko, E. Matsuro, C. Ledovskikh**  
Reverse engineering as a way to optimize and design parts produced by elastic-medium drawing
- 17:45 Y 1.61 **N.V. Syreyschikova, D.Yu. Pimenov**  
Fundamental research and methods of quality assurance of coated abrasive

**СЕКЦИЯ № 2**  
**ИННОВАЦИОННЫЕ МАТЕРИАЛЫ. УПРОЧНЯЮЩИЕ ТЕХНОЛОГИИ И**  
**ПОКРЫТИЯ**

**ПЕРВОЕ ЗАСЕДАНИЕ**

**12 сентября, среда**

Ауд. 103            9.00 – 16.00

Руководители: Глезер А.М., д.т.н., проф.  
 Шрон Л.Б. к.т.н., доц.

- 9:00    У 2.1 **I. Tsareva , O. Berdnik ,M. Maximov, V. Kuzmin**  
 High thickness coatings of zirconium dioxide for thermal protection of metal alloys
- 9:15    У 2.2 **N.Y. Dudareva, L.I. Zaynullina, E.I. Ustimova**  
 The influence of microstructure of Al-Si alloy and microarc oxidation modes on corrosion resistance of the formed coatings
- 9:30    У 2.3 **E. Smolentsev, A. Kadyrmetov, M. Kondratyev**  
 Optimization of process of application plasma hardening coating
- 9:45    У 2.4 **E. Nosova, F. Grechnikov, N. Lukonina**  
 Research of structural entropy of sheet aluminium alloys depending on annealing temperature
- 10:00    У 2.5 **A. Leonov**  
 Effect of alumina nanofibers content on the microstructure and properties of ATZ composites fabricated by spark plasma sintering
- 10:15    У 2.6 **A.I. Kustov, I.A. Miguel**  
 Development of methods of acoustic microscopy for monitoring the structure and properties of coatings for various purposes
- 10:30    У 2.7 **N. Antonova**  
 Evaluation of Adhesion Strength of Protective Coatings with Al Powder by Adhesion Work of Initial Suspension towards Metal Surface
- 10:45    У 2.8 **V.N. Kostin, O.N. Vasilenko, A.V. Byzov**  
 Modelling of magnetic field and flux in objects having surface-hardening and transition layer

*Перерыв на кофе*

- 11:30    У 2.9    **V.N. Kostin, O.N. Vasilenko, A.V. Byzov**  
 Multiparameter method of surface hardening quality testing
- 11:45    У 2.10    **N. Musin, N. Dudareva**  
 Investigation of the effect of the coating formed by microarc oxidation on the piston top on the thermal state of the internal combustion engine parts
- 12:00    У 2.11    **D. Mashtalyar, I. Imshinetsky, S. Sinebryukhov, S. Gnedenkov**  
 Characterization of PEO coatings on the magnesium alloy MA8 formed in electrolyte containing ZrO<sub>2</sub> - SiO<sub>2</sub> nanoparticles
- 12:15    У 2.12    **V.I. Betekhtin, M.V. Narykova, A.G. Kadomtsev**  
 Evolution of the structure of ultrafine-grained metals and alloys in creep tests
- 12:30    У 2.13    **E. Marinin, G. Gavrilov, A. Chirkova**

The Increasing of the Operational Stability of Wood-working tools by the laser cementation

12:45 У 2.14 **G. Gavrilov, A. Bratuhin, E. Marinin**

Laser-thermal Hardening of the Tools Set for Cold-forming Fasteners

*Перерыв на обед*

14:00 У 2.15 **S.V. Reznik, P.V. Prosuntsov, K.V. Mikhailovsky**

Development verification of coatings made from porous ceramic-matrix composite materials

14:15 У 2.16 **V. Kuzmin, E. Kornienko, I. Gulyaev, S. Vashchenko, D. Sergachev**

Application of supersonic air plasma torch for metallic nickel-based alloys spraying

14:30 У 2.17 **A. Bocharov, V. Vigovskiy, V. Nelub**

Metal coating of carbon fabric and properties of the carbon-fiber-reinforced plastic

14:45 У 2.18 **C. Yangyang, G.V. Malysheva**

Method for determining the rational regimes of curing products from polymer composite materials

15:00 У 2.19 **A.S. Borodulin, A.N. Kalinnikov, A.G. Tereshkov, A.M. Kharaev**

New polymeric binders for the production of composites

15:15 У 2.20 **V.M. Gavrish, G.A. Baranov, Yu.O. Velyaev, O.P. Gavrish**

Study on production of composites based on epoxy matrix modified by hard-alloy waste processing products

15:30 У 2.21 **N. Cherkashina, V. Gavrish, T. Chayka**

Experiment – calculated investigation of composite materials for protection against radiation

15:45 У 2.22 **N.M. Derbasova, O.P. Gavrish, Yu.O. Velyaev**

Research of some technological and physico-mechanical characteristics of composite materials obtained by modification of epoxy binder with copper and copper oxide nanopowders

## ВТОРОЕ ЗАСЕДАНИЕ

**13 сентября, четверг**

Ауд. 103

9.00 – 17.45

Руководители: Горбатюк С.М., д.т.н., проф.

Колесов А.Г. к.т.н.

9:00 У 2.23 **I. Shakirov, A. Zhukov, P. Kuznetsov, V. Bobyr', T. Fedina, O. Korznikov**

Investigation of physical and mechanical properties of iron based samples manufactured by selective laser melting

9:15 У 2.24 **R.S. Khmyrov, C.E. Protasov, A.V. Gusarov**

Influence of the conditions of selective laser melting on evaporation

9:30 У 2.25 **Y. Pristinskiy, N.W. Solis Pinargote, A. Smirnov**

Spark plasma and conventional sintering of ZrO<sub>2</sub>-TiN composites: A comparative study on the microstructure and mechanical properties

9:45 У 2.26 **N. Dudareva, R. Gallyamova**

- The influence of chemical composition of aluminum alloys on the quality of oxide layers formed by microarc oxidation
- 10:00 У 2.27 **Е.В. Абдульменова, С.Н. Кульков, О.Ю. Ваулина**  
 Определение гранулометрического состава металлического порошка TiNi
- 10:15 У 2.28 **Р. Podrabinnik, A. Mironov, I. Gershman**  
 The influence of secondary structures on wear resistance of experimental aluminum alloys for monometallic slide bearings
- 10:30 У 2.29 **N.A. Zaitsev, I.I. Khryashchev, A.A. Shatulsky**  
 Timing on homogenization of single-crystal heat-resistant alloys
- 10:45 У 2.30 **V.V. Mishakin, A.V. Gonchar, V.A. Klyushnikov**  
 Relationship between the characteristics of the crystallographic texture of low-carbon steels with accumulation of damages at the early stages of fatigue failure

*Перерыв на кофе*

- 11:30 У 2.31 **A. Kulemina, I. Kovenskiy**  
 Influence of the conditions for obtaining coatings on the structure and properties
- 11:45 У 2.32 **E.V. Romashkov, S.E. Krylova, A.P.Fot, O.A. Romashkova**  
 The Influence of Heat Treatment Conditions on Structuring of Steel for Production of Injection Molding
- 12:00 У 2.33 **A. Burakov, E. Neskornnaya, A. Babkin**  
 Removal of the Alizarin red anionic dye using graphene nanocomposites: A study on kinetics under dynamic conditions
- 12:15 У 2.34 **D. Kurnosov, A. Burakov, I. Burakova**  
 Development of a bentonite clay/carbon nanotubes composite for liquid-phase adsorption
- 12:30 У 2.35 **E. Mkrtchyan, A. Burakov, I. Burakova**  
 Malachite green adsorption on graphene nanocomposites: A study on kinetics under dynamic conditions
- 12:45 У 2.36 **A.V. Logunov, D.V. Danilov, R.V. Khramin**  
 High-strength nickel-based alloy SLGS-5 for operation in active marine salt corrosion environment

*Перерыв на обед*

- 14:00 У 2.37 **A. Logunov, S. Zavodov, D. Danilov**  
 The challenges in development of nickel-based heat-resistant superalloys for gas turbine disks and creation of a new superalloy with increased operational characteristics
- 14:15 У 2.38 **M. Oge, D. Ozkan, M.B. Celik, M.S. Gok, A.C. Karaoglanli**  
 An Overview of Utilization of Blast Furnace and Steelmaking Slag in Various Applications
- 14:30 У 2.39 **E. Priymak, A. Atamashkin, A. Stepanchukova**  
 Effect of post-weld heat treatment on the mechanical properties and mechanism of fracture of joint welds made by Thompson friction welding
- 14:45 У 2.40 **С.Е. Крылова**  
 Разработка и реализация технологии восстановления и упрочнения деталей энергетической и нефтегазодобывающей отрасли Оренбуржья методом лазерного воздействия
- 15:00 У 2.41 **Ю.Н. Драгошанский, В.И. Пудов**  
 Влияние высокочастотной термомангнитной обработки на электромагнитные свойства аморфных материалов

- 15:15 Y 2.42 **D. Privezentsev, A. Zhiznyakov, Ya. Kulkov**  
Analysis of the microhardness of metals using digital metallographic images
- 15:30 Y 2.43 **A. Shchegolkov, A. Shchegolkov, A. Demidova**  
The use of nanomodified heat storage materials for thermal stabilization in the engineering and aerospace industry
- 15:45 Y 2.44 **G. Khalikova, O. Sitdikov, V. Trifonov**  
The effects of applied pressure and die temperature on the structure and mechanical properties of squeeze cast Al–4.8Cu–1.2Mg wrought alloy

*Перерыв на кофе*

- 16:30 Y 2.45 **Zaw Ye Aung, P.V. Prosuntsov, S.V. Reznik**  
Influence of single-walled carbon nanotubes' diameter and length on the thermal conductivity of polymer composites
- 16:45 Y 2.46 **A. Shchegolkov, T. Dyachkova, E. Burakova**  
Heat storage materials based on polymers modified with functionalized carbon nanotubes
- 17:00 Y 2.47 **T.A. Duyun, D.A. Bushuev, M.A. Sukharev, V.G. Rubanov**  
Simulation of large-size plain bearings processing using a virtual prototype of machine module
- 17:15 Y 2.48 **A.I. Kondakov, A.S. Vasiljev**  
Evaluation of the types of multiproduct manufacturing of machine components and some aspects of their design
- 17:30 Y 2.49 **N. Pokintelitsa, E. Levchenko**  
The Study of the Kinetics of the Protective Coating Formation in the Mechanochemical Vibrational Method

**СЕКЦИЯ № 3**  
**ОБЩИЕ ПРОБЛЕМЫ МАШИНОСТРОЕНИЯ И МОДЕЛИРОВАНИЯ**  
**ТЕХНИЧЕСКИХ СИСТЕМ.**

**ПЕРВОЕ ЗАСЕДАНИЕ**  
**12 сентября, среда**

Ауд. 110      9.00 – 17.45

Руководители: Сидоров Д.Е., к.т.н, доц.  
Левченко Е.А. к.т.н., доц.

- 9:00 У 3.1 **O. Lukashuk, K. Letnev, A. Komissarov**  
Efficiency Increase in Excavation Control as Primary Reserve of Performance Increase for Open-Pit Excavators
- 9:15 У 3.2 **O. Zavyalov**  
Optimization of the parameters of the piston pin bearing of the tractor engine taking into account the solution of the lubrication problem
- 9:30 У 3.3 **S. Abdulov, I. Trusevich, A. Volkov**  
Ensuring the amphibious capabilities of the amphibious vehicle based on the hydrodynamic buoyancy principle
- 9:45 У 3.4 **Y. Lagunova, I. Ivanov, S. Horoshavin**  
Perfection of constructive schemes of drive of running equipment of a career motor transport
- 10:00 У 3.5 **I. Taratorkin, V. Derzhanskii, A. Taratorkin**  
Oscillation damping in the power unit when starting the engine equipped with the Common Rail system
- 10:15 У 3.6 **I. Taratorkin, V. Derzhanskii, A. Volkov**  
Stabilization of Transport Tracked Vehicle Trajectory
- 10:30 У 3.7 **K. Salamandra**  
Static analysis and parameters synthesis of planetary-layshaft transmissions with three power flows
- 10:45 У 3.8 **V. Shestakov, P. Babenkov, S. Horoshavin**  
Features of designing hydraulic excavator in APM WinMachine
- Перерыв на кофе*
- 11:30 У 3.9 **S. Ovsyannikov, E. Kalinin**  
Features of calculation of plough for walking tractor
- 11:45 У 3.10 **N. Artyomov, M. Podrigalo, A. Abdulgazis, U. Abdulgazis**  
Determination of output-input ratio of mobile machine wheeled mover
- 12:00 У 3.11 **N. Artyomov, M. Podrigalo, A. Abdulgazis**  
Analyzing the dynamics of a single car wheel
- 12:15 У 3.12 **M. Lemeshko, M. Molev, I. Golovin**  
Hydraulic technological machines with adaptive drive structure

- 12:30 Y 3.13 **A. Kiryukhin**  
Stabilization of vibrations of rotary machines in radial sliding bearings with integrated liquid dampers
- 12:45 Y 3.14 **S.L. Vasilevykh, A.V. Udalov, E.S. Shelihov**  
The constructing of an equivalent mechanical model of distributed machine system with various technological equipment
- Перерыв на обед*
- 14:00 Y 3.15 **A.V. Ilyakhinskiy, V.M. Rodyushkin, E.K. Berezin**  
Ultrasonic flaw detection capabilities at first stage of technological process of ship engine overhaul
- 14:15 Y 3.16 **V. Kopyrin, O. Smirnov, M. Deneko**  
Optimisation of reactive power consumption regimes by the electric centrifugal pumps installations
- 14:30 Y 3.17 **M.V. Kharchenko, E.S. Zambrigitckaya, E.V. Suvorova**  
Modelling of the process of the friction couple contacting and examining the conditions of forming an adsorbating monolayer on the friction surface regarding the use of a lubricant material
- 14:45 Y 3.18 **A. Gonchar, V. Mishakin, K. Kurashkin**  
Thermo-ultrasound method for determining the damage of structural material.
- 15:00 Y 3.19 **Y. Tarasov, A. Radyuk, S. Gorbatyuk**  
Research of heat stresses in components of blast furnace tuyere
- 15:15 Y 3.20 **V. Erofeev, D. Kolesov, A. Leonteva**  
Nonlinear waves in an elastic guide interacting with an elastic-inertial foundation
- 15:30 Y 3.21 **S. Glech, V. Dushko, I. Blagovidova, V. Kramar**  
Calculation of the number of sensors sufficient for accurate measurement of the ice load pressure on the walls of the oil platform
- 15:45 Y 3.22 **A.A. Cherepashkov, P.A. Samoylov**  
Modeling and analysis of the effectiveness of dynamic models of complex automated systems of machine-building production
- Перерыв на кофе*
- 16:30 Y 3.23 **V. Erofeev, E. Lissenkova, A. Malkhanov**  
Wave resistance to movement of objects along the rocket track guides
- 16:45 Y 3.24 **G. Chernova, A. Sinkov, Y. Moiseev**  
Evaluation of efficiency of buses "Volgabus" with determination of critical values of vibration acceleration of transmission
- 17:00 Y 3.25 **Y.A. Gol'tsov, A.S. Kizhuk, V.G. Rubanov**  
Chaotic dynamics of a pulse-modulated control system for a heating unit
- 17:15 Y 3.26 **D. Elovenko, A. Hirsch, V. Kräusel**  
Mathematical model of one and two-step methods calculation of thermal fields and stress-strain state of multilayer cylindrical constructions
- 17:30 Y 3.27 **A. Popov, R. Valiev**  
Non-exponential networks in production



## ВТОРОЕ ЗАСЕДАНИЕ

**13 сентября, четверг**

Ауд. 110            9.00 – 17.30

Руководители: Богуцкий В.Б., к.т.н, доц.  
Владецкая Е.А., к.т.н., доц.

- 9:00 У 3.28 **A. Govorkov, M. Lavrenteva, I. Fokin**  
Mathematical modeling of making mechanical engineering products based on an information model
- 9:15 У 3.29 **E. Masyutkin, V. Masyagin, B. Avdeyev**  
Mathematical model of orientation of a ferromagnetic particle in magnetic field
- 9:30 У 3.30 **V. Krupenin**  
Distributed impact elements and their use in modeling vibration fields in machine structures
- 9:45 У 3.31 **S. Eremeykin, G. Panovko, A. Shokhin**  
Analysis of oscillations of a mechanical system with inertial exciters at an alternating position of it's mass center
- 10:00 У 3.32 **A. Ivanovskaya, V. Popov**  
Mathematical model of the volumetric hydrodrive's dynamics, sensitive to the loading variation
- 10:15 У 3.33 **A.V. Dmitriev, V.E. Zinurov, O.S. Dmitrieva**  
Influence of elements thickness of separation devices on the finely dispersed particles collection efficiency
- 10:30 У 3.34 **I.N. Madyshev, O.S. Dmitrieva, A.V. Dmitriev**  
Efficiency of Cooling the Water Droplets Within Jet-Film Unit of Cooling Tower Filler
- 10:45 У 3.35 **S. Petrosov, M. Lemeshko, A. Kozhemyachenko**  
The robotized stand for the diagnosing compression refrigerating machines
- Перерыв на кофе*
- 11:30 У 3.36 **V. Desnitsky, I. Kotenko**  
Security Monitoring of Cyberphysical Systems: Water Supply Case Study
- 11:45 У 3.37 **M.Makeev, V. Sinyakin, S. Meshkov**  
Reliability prediction of RFID passive tags power supply systems based on RTD under given operating conditions
- 12:00 У 3.38 **E. Sokolova**  
The study of algorithms for 3D's engineering object representing with regard to their construction specifics
- 12:15 У 3.39 **A. Kabanov, A. Balabanov**  
The modeling of an anthropomorphic robot arm
- 12:30 У 3.40 **B. Avdeyev, V. Prosvirnin, R.R. Dema**  
Calculation of magnetic devices cleaning coolants in the agro-industrial complex

- 12:45 Y 3.41 **S.V. Belousov, S.A. Pomelyayko**  
Design of the universal agricultural working body and study of its parameters  
*Перерыв на обед*
- 14:00 Y 3.42 **S.K. Papusha, A.E. Bogus, V.I. Kononov**  
Interaction of rotary working body of roller type with the object of processing
- 14:15 Y 3.43 **K. Mashkov, V. Rubtsov, I. Rubtsov**  
Development of robotics technologies in agriculture
- 14:30 Y 3.44 **A. Dorokhov, V. Khamyev, K. Lepeshkin**  
Modernization of sieves of grain cleaning machines
- 14:45 Y 3.45 **A.V. Lavrov, I.G. Smirnov, M.A. Litvinov**  
Justification of the construction of a self-propelled selection seeder with an intelligent seeding system
- 15:00 Y 3.46 **E. Smekhunov, E. Chaika, I. Gritsay**  
The determination of the single piece dispenser parameters
- 15:15 Y 3.47 **O. Zavyalov**  
For an incompressible lubricant in the bearing sliding surfaces of the spherical segments with the adjusted surfaces
- 15:30 Y 3.48 **K. Nemtinov, A. Eruslanov, Y. Nemtinova**  
Rationale construction of individual elements of technological complex
- 15:45 Y 3.49 **D. Liakhmanov, V. Gay, I. Polyakov**  
A method of predicting the time of failure of a rolling bearing  
*Перерыв на кофе*
- 16:30 Y 3.50 **D. Ogorelkov, V. Mironov, O. Lukashuk**  
Durability of metal structure under quasi-static load
- 16:45 Y 3.51 **M. Mechikova, N. Zemlyakova, E. Medjuha**  
Improving the economic efficiency of Russian industrial enterprises
- 17:00 Y 3.52 **M. Mechikova, N. Kovaleva, O. Vorontsova**  
Innovative development of Russian industrial enterprises
- 17:15 Y 3.53 **M.V. Yanyukina, M.A. Bolotov**  
Modeling of turbine wheel assemblies taking into account the deformation of parts

## **ЗАКРЫТИЕ КОНФЕРЕНЦИИ**

14 сентября, пятница

Актальный зал 9.00 – 10.30

1. Сообщение руководителей секций.
2. Обсуждение стендовых докладов
3. Выступления и дискуссии.
4. Обсуждение заключения и рекомендаций конференции.
5. Принятие решения.
6. Закрытие конференции.

## СТЕНДОВЫЕ ДОКЛАДЫ

### Стендовая сессия I (11 сентября)

- C 1.1 **A. Kumaritov, E. Sokolova**  
Research and development of decision-making methods for creating 3d objects in mechanical engineering
- C 1.2 **T. Ivanova**  
Research of working capacity of grinding wheels
- C 1.3 **T. Ivanova**  
Design and technological methods of reducing of thermal stress in grinding process
- C 1.4 **N. Baurova, A. Anoprienko, Y. Romanova**  
The performance evaluation for rivet bonded joints in production and machine maintenance
- C 1.5 **A. Konoplin, N. Baurova, S. Abrakov**  
Application of glue machinery repairs in Arctic conditions
- C 1.6 **A. Vereshchagin, V. Vereshchagin**  
Improving the cutting tool durability by applying multi-layer coatings
- C 1.7 **K. Rakhimyanov, N. Gaar, A. Loktionov**  
Possible mechanisms of electrochemical processing activation ARMCO-iron
- C 1.8 **Y. Semenova, Y. Nikitin, A. Rakhimyanov**  
Revealing the technological modes range for ultrasonic surface hardening of cast iron
- C 1.9 **Kh. Rakhimyanov, S. Vasilevskaya**  
Prospects of combining electro – erosive and electrochemical processes in forming the holes of a small diameter in difficult – to – process materials
- C 1.10 **Y. Dimov, D. Podashev**  
Robotic edge machining with abrasive brushes
- C 1.11 **N. Revenko, T. Berkutova, O. Silivanova**  
Systematization of the definitions characterizing the content of services provided by industrial enterprises
- C 1.12 **O. Medvedeva, A. Yanyushkin, V. Popov**  
Energy calculation of contact surface adhesion at interaction in different media
- C 1.13 **V. Popov, A. Yanyushkin, P. Arkhipov**  
Combined electric diamond grinding of materials prone to adhesive diffusive interaction
- C 1.14 **O. Medvedeva, P. Arkhipov, A. Yanyushkin**  
Influence of hard alloys CEDG modes on the size of dissolved layer
- C 1.15 **A.A. Dyakonov, A.V. Herreinstein, A.S. Degtyareva-Kashutina**  
Thermophysical problem for high-speed processing
- C 1.16 **A. Kurochkin, V. Vagin, A. Karpesh, N. Dyorina**  
Control system for electrohydraulic drive of a mobile sinking hoisting plant
- C 1.17 **I. Ovsyanikova, A. Tarapanov**  
Development of a virtual management system for the cutting process using neural networks
- C 1.18 **S.Kanyukov, A. Konovalov, O. Muizemnek**  
Interactive communication between the user and the computer-aided design system of shaft forging on presses
- C 1.19 **V. Velikanov, N. Dyorina, O. Panfilova**

Stability of a mine excavator with a variable cab position

- C 1.20 **V.G. Gusev, A.A. Fomin, V.A. Saldaev**  
The schemes analysis of profile milling of long and non-technological workpieces
- C 1.21 **A.I. Belousova, A.V. Moiseev**  
Experimental researches of determination of degree of interaction of a working organ with the object of treatment in plant growing
- C 1.22 **S.V. Belousov, A.I. Belousova**  
Experimental researches of plant protection means
- C 1.23 **V. Poroshin, A. Shlishevsky**  
The forecasting of deformational and strength properties of metals with uniformly scattered defects in form of spherical hollows at single and cyclic loading
- C 1.24 **M. Ivanov, O. Burlachenko, A. Lyashenko**  
Efficiency of Use of the Solid-State YAG:Nd-Laser for Hardening of High-Strength Cast Iron VCH 70-3
- C 1.25 **E.S. Palkina**  
Using Business Process Improvement Concept to Optimize Enterprise Production System in Conditions of Innovative Economic Development
- C 1.26 **V. Velikanov, N. Dyorina, I. Usov, Igor Usov (jr)**  
Coefficients determination of fuzzy products rules in a fuzzy model for excavators' ergonomics estimation
- C 1.27 **A. Unyanin, A. Khazov**  
The process of interaction between abrasive disk and a workpiece while grinding under ultrasonic vibrations
- C 1.28 **V. Smolentsev, A. Kuzovkin, I. Drozdov**  
Application of two-component technological media for surface processing with a high degree of curvature
- C 1.29 **G.M. Martinov, A. Al Khoury, A. Issa**  
An approach of developing low cost ARM based CNC systems by controlling CAN drives
- C 1.30 **Y. Tarasenko, L. Krivina, S. Kirikov**  
Pulse micro-surfacing as nonconventional method within the comprehensive technology of the gas-turbine engine recovery
- C 1.31 **M. Nazarov, E. Kiselev, A. Popovich**  
Using of machine parts abstract elements in nc-programs developing for the cnc machines
- C 1.32 **A. Yanyushkin, V. Popov, D. Rychkov**  
Application of protective coatings in combined electric diamond grinding
- C 1.33 **E. Degodya, O. Shavakuleva**  
Effect of liquid glass on the surface properties of different minerals
- C 1.34 **V.G. Gusev, A.V. Morozov**  
Deviation from planeness of surfaces after the combined peripheral grinding
- C 1.35 **V. Mazur**  
Experimental Research in Automobile Non-Pneumatic Tire Force Heterogeneity
- C 1.36 **I. Kutlubaev, E. Matcko, O. Panfilova**  
Method of identification of parameters of closed planetary train based on exploratory design
- C 1.37 **M.R. Bahrami**  
Mechanics of Diagnostic Machine on Electrical Transmission Lines Conductors
- C 1.38 **M. Rashkovets, A. Nikulina, O. Klimova-Korsmik**

High-speed direct laser deposition of 51Ni-14Co-10Cr-6Al-5Mo alloy: Microstructure and Phase composition

- C 1.39 **A. Antsupov, V. Antsupov, M. Slobodianskii**  
Analytical Testing and Methods For Increasing the Durability Of Plunger Hydraulic Cylinders
- C 1.40 **I. Yaitskov**  
On the issue of formation the air noise component at workplaces of the diesel locomotives crews
- C 1.41 **V.A. Perfilov, V.A. Lugovaya, V.V. Yaroshik**  
The formation of composite coatings with high hardness with high-speed heating
- C 1.42 **A. Bogdanov, A. Permyakov, Y. Zhdanova**  
Research of kinematics of actuating group of anthropomorphic gripper with general drive
- C 1.43 **A. Khomichev, I.Trusevich**  
Finite element method application to calculate the friction discs of the hydromechanical transmission control system
- C 1.44 **V. Smolentsev, A. Kuzovkin, S. Safonov**  
Nano-transformations in the surface layer of materials under combined processing by unbound granules
- C 1.45 **M. Naumova, I. Basyrov, K. Aliev**  
Reengineering of the ore preparation production process in the context of “Almalyk MMC” JSC
- C 1.46 **S. Makarov, V. Dement'yev, T. Makhneva, E. Makarova**  
Numerical simulation of the non-regular mode of cooling a high-temperature metal billet by the flow of a gas-liquid medium
- C 1.47 **T. Makhneva, V. Dement'yev, S. Makarov**  
The influence of tensile stresses on the properties of reverted austenite in nanostructured steel at overcooling
- C 1.48 **V.P. Pavlov, V.M. Kudoyarova, A.A. Philippov**  
Modeling of the elastic characteristics of a long-fiber reinforced composite with an arbitrary orientation of the reinforcing fibers
- C 1.49 **A. Brover, G. Brover, O. Moysova**  
Structural effects in laser processing zones of chemical coatings
- C 1.50 **S. Dmitriev, V. Malikov, A. Sagalakov**  
Subminiature eddy current transducers for thickness measurement
- C 1.51 **V. Artiukh, V. Kukhar, E. Balalayeva**  
Refinement Issue of Displaced Volume at Upsetting of Cylindrical Workpiece by Radial Dies
- C 1.52 **O. Anikeeva, A. Ivakhnenko, O. Erenkov**  
Approaches to nonlinear theory creation for machine tools geometric accuracy
- C 1.53 **O. Anikeeva, A. Ivakhnenko, O. Erenkov**  
Bases of variational method for calculating of metal-cutting systems accuracy
- C 1.54 **I. Lyuminarsky, S. Lyuminarsky**  
Kinematic error of a harmonic drive
- C 1.55 **A. Keropyan, Y. Babichev, P. Sizin**  
Investigation of the process of controlled starting of the open-pit locomotive for ensuring the maximum adhesion coefficient at the starting
- C 1.56 **A. Denisenko**  
Impact of manufacturing errors of ball screw system on performance characteristics

- C 1.57 **D. Solovjev, I. Solovjeva, Y. Litovka**  
Application of multiset theory for the selection of the single result from alternatives aggregate obtained using different decision methods
- C 1.58 **A. Kudryashov, E. Igumensheva, O. Kopylova**  
The systems of the active rigidity and their application in transport machine
- C 1.59 **A. Beskopylny, N. Onishkov, V. Korotkin**  
Bending strength assessment of chemically-heat-strengthened Novikov geaging
- C 1.60 **E. Lyuminarskaja, I. Lyuminarsky, K. Selivanov**  
Theoretical study of electrical contact dustiness impact on the transition resistance
- C 1.61 **D. Rychkov, D. Lobanov, A. Kuznetsov**  
Achieving high quality surface of laminated glass-reinforced plastics during milling
- C 1.62 **D. Fominykh, V. Kushnikov, A. Rezhnikov**  
Prevention unstable conditions in the welding process via robotic technological complexes
- C 1.63 **A. Dyakonov, A. Gorodkova**  
Experimental research of cutting forces during microgrinding.
- C 1.64 **V.A. Perfilov, O.V. Dushko, V.V. Yaroshik**  
Characteristics of alloying and structure formation of wear-resistant coatings carboborite
- C 1.65 **V. Yemelyanov, N. Yemelyanova, A. Nedelkin**  
Neural network for decision support to determine the operating mode of lined equipment
- C 1.66 **A. Dulesov, D. Karandeev, N. Dulesova**  
Improving the operation quality of technical systems using information theory models
- C 1.67 **K.B. Evseev, A.B. Kartashov, I.Z. Dashtiev, A.V. Pozdeev**  
Analysis viscoelastic properties of fiber-reinforced composite spring for the all-terrain vehicle
- C 1.68 **S. Abdulov, A. Taratorkin, P. Nenashev**  
Dynamic loading of a water jet propulsion drive of amphibious vehicles
- C 1.69 **A. Akhmedov**  
The device for center adjustment of pipe joints to carry out welding works when building and major repairing main pipelines
- C 1.70 **A. Ryazantsev, S. Yukhnevich**  
Use of combined methods of treatment to obtain artificial roughness on the parts' surfaces
- C 1.71 **E. Sarach, G. Kotiev, S. Beketov**  
Methods for road microprofile statistical data transformation
- C 1.72 **M. Androsenko, E. Kulikova, O. Osipova**  
Improvement in billets quality from billet caster by roller suspension of secondary cooling zone stiffening
- C 1.73 **Yu. Bagaiskov**  
Bending Deformation Analysis of Gear Hone Tooth Lateral Faces
- C 1.74 **P. Ogar, A. Kozhevnikov, V. Fedorov**  
The reduced modulus of elasticity of a layered half-space
- C 1.75 **A.B. Степанчукова**  
Применение карбонитрации для упрочнения резьбовых соединений бурильных труб из среднеуглеродистых легированных сталей
- C 7.76 **V.A. Nosenko, A.A. Aleksandrov**  
The relation between the geometric parameters of grinding powders grains measured by laser diffraction and light-microscopical methods
- C 7.77 **I.A. Buyanov**  
Technologies for molding of through-hole parts from carbon fiber reinforced plastic

## Стендовая сессия II (12 сентября)

- C 2.1 **P. Ogar, Y. Alpatov, D. Gorokhov**  
Relative contact area in metal-polymer joints
- C 2.2 **M. Nekhoroshev, M. Orlov, A. Ryazanov**  
Using a parametric 3D assembly of a GTE combustion chamber to quickly generate its model sector
- C 2.3 **A. Ryazanov, A. Shvetsov**  
Modeling the run of a control program for turning GTE compressor disk workpieces on a virtual CTX alpha 500 dual-spindle CNC lathe
- C 2.4 **A.V. Bogdanov, S.Yu. Popova, A.A. Kalugin, V.Ye. Ivanov**  
Usage of the device keeping the driver from fall-ing asleep as a factor in reducing road acci-dents
- C 2.5 **A. Agapovichev, A. Sotov, V. Kokareva, V. Smelov**  
Possibilities and limitations of titanium alloy additive manufacturing
- C 2.6 **Z. Tikhonova, D. Kraiynev, E. Frolov**  
Efficiency improvement for assigning of cutting conditions on the basis of the thermo-EMF signal
- C 2.7 **A.A. Samsonov, S.I. Solov'ev, P.S. Solov'ev**  
Eigenvibrations of a simply supported beam with elastically attached load
- C 2.8 **A.A. Samsonov, S.I. Solov'ev**  
Investigation of eigenvibrations of a loaded bar
- C 2.9 **T. Ogneva, A. Ruktuev, A. Girsh**  
Non-vacuum electron beam cladding of Ti-Ni-Al intermetallics on titanium alloy
- C 2.10 **K. Kurashkin, V. Mishakin, A. Rudenko**  
Ultrasonic evaluation of residual stresses in welded joints of hydroelectric unit rotor frame
- C 2.11 **V. Papin, R. Bezuglov, E. Veselovskaya**  
The test bench of a cascade heatpump installation of a heat power complex for highly effective use secondary and renewables
- C 2.12 **A.S. Gishvarov, J.C. Raherinjatovo**  
Parametric diagnostics of the condition of a dual-flow turbojet engine using neural network simulation of the operating process
- C 2.13 **V. Gostishchev, E. Kim, E. Ri**  
Obtaining of aluminum-matrix Al-Zr, Al-Zr-W alloys by the SHS metallurgy method
- C 2.14 **S.Na. Khimukhin, K.Pa. Eremina, Ri Hosen**  
Nickel aluminides coatings on steel C1030 after thermal cycling
- C 2.15 **S. Galyshev, A. Gomzin, F. Musin**  
Aluminum matrix composite reinforced by carbon fibers
- C 2.16 **R. Gallyamova, S. Galyshev, F. Musin**  
Preparation of barrier SiO<sub>2</sub> coating on carbon fibers by sol-gel method
- C 2.17 **K. Bormotin, W. Aung**  
Computation method of geometry die of stretch forming press
- C 2.18 **O. Burlachenko, A. Lyashenko, M. Ivanov**  
Rational modes selection of magnetic treatment of metal surfaces
- C 2.19 **S. Karpushkin, A. Glebov, S. Karpov**  
Column press design optimization on the basis of stress-strain state's mathematical modeling



- C 2.20 **V. Mokrozub, E. Malygin, V. Nemtinov**  
Information Models for Problems solving of Hardware Design of Multi-range Chemical Industries
- C 2.21 **S. Karpushkin, A. Glebov, K. Kornilov**  
An application of magnetization curve approximations for calculation of eddy current fields in ferromagnetic materials
- C 2.22 **S. Karpova, M. Krasnyanskiy, E. Malygin**  
Mathematical modeling of material pressing with the account of its compression and heating
- C 2.23 **S. Podbolotov, A. Kolga, N. Dyorina**  
Mathematic simulation of the power interchange in the interbucket space of coaxially located impellers of the centrifugal turbo machine
- C 2.24 **I. Troyanovskaya, A. Kalugin**  
Certification tests of a protective device such as ROPS to ensure safe usage of tractors
- C 2.25 **E. Bushueva, P. Kuzin, E. Drobyaz, B. Grinberg**  
Wear Resistance Increasing of Austenitic Steel by the Surface Hardening with Titanium Carbide
- C 2.26 **A. Mironova, P. Podrabinnik, E. Kuznetsova**  
Secondary structures as self-organization processes and finishing treatment of friction surfaces of slide bearings and shafts.
- C 2.27 **M.V. Ovechkin, E.S. Shelihov, J.I. Ovechkina**  
The analysis of methods effectiveness of automated non-destructive testing of products based on Data Mining methods
- C 2.28 **A. Drobotov, A. Avdeev, A. Shvets**  
Magnetohydrodynamic pump application in complex form aluminum parts additive manufacturing
- C 2.29 **D. Kraynev, Z. Tikhonova, A. Bondarev**  
On-line diagnostics of the physical and mechanical properties of the treated surface at the production stage.
- C 2.30 **A. Kapitanov, V. Mitrofanov, S. Egorov**  
A study of reconfigurable production system performance
- C 2.31 **V.G. Shmorgun, A.I. Bogdanov, A.O. Taube**  
Study of the processes of structure formation of the reaction zone of interaction in the Cr<sub>20</sub>Ni<sub>80</sub> + AD1 layered composite during heat treatment
- C 2.32 **A.N. Anoshkin, P.V. Pisarev, Y.S. Kirova**  
Numerical modeling of automated tape placement process of unidirectional thermoplastic
- C 2.33 **A. Kapitanov, A. Kozlova, S. Tyasto**  
The information model of the modern digital production
- C 2.34 **V.A. Gafarova, A.Y. Babin, E.R. Gareeva, K.N. Abdrakhmanova, L.N. Lomakina**  
Influence of a filler on strength characteristics of the properties of a composite material based on epoxy resin
- C 2.35 **A.N. Anoshkin, P.V. Pisarev, K.A. Maksimova**  
Investigation of the influence of perforation parameters on the acoustic efficiency of sound-absorbing structures
- C 2.36 **S. Strekalov, L. Strekalova, M. Pertsev**  
Development of environmentally friendly technologies with spiral movement of aggregates for landscape agriculture
- C 2.37 **V.M. Smirnov, E.P. Shalunov**

Possibilities of creation and the prospect of application of a binder with the matrix filled structure "tin bronze - the mechanoalloyed granules" for production of diamond tools.

- C 2.38 **A. Chikhranov, V. Tabakov, O. Nazarova**  
The influence of the tool base on the formation of stresses in wear-resistant coatings in the cutting process
- C 2.39 **R.N. Khasanov, A.S. Valiev, I.R. Kuzeev**  
Assessment of steel mechanical characteristics of non-standard compact specimens under statistical tests
- C 2.40 **A. Kudryashov, O. Kopylova, A. Kozyr**  
Peculiarities of calculation the running resistances of the wire across the guides wire-tying machines
- C 2.41 **N. Adamenko, G. Agafonova, E. Sedov**  
Influence of explosive pressing on the formation of structure and properties of PTFE-based composites
- C 2.42 **A. Filatova, T. Tarasova**  
Testing and Introduction of Medical Products Manufactured by Selective Melting
- C 2.43 **A. Kondratiev, S. Smorodov, V. Antsev, A. Kirichek**  
Improving the efficiency of the roller screen with circular disks
- C 2.44 **A. Boyko, V. Kukartsev, A. Stupina**  
Principles of innovative reproduction strategic planning of the enterprises fixed assets in rocket and space industry
- C 2.45 **O. Lebedeva, M. Kripak**  
Modeling of public transport waiting time indicator for the transport network of a large city on the transport network of a large city.
- C 2.46 **O. Chengar, V. Shevchenko, D. Voronin**  
Bioinspired algorithm for multi-criterial problem solution of production schedule optimization
- C 2.47 **D. Voronin, V. Shevchenko, O. Chengar**  
Technology of computing risks visualization for distributed production infrastructures
- C 2.48 **S. Sizov, V. Tabakov, A. Chikhranov**  
Functional the parameters of the cutting process of the cutting tool with multilayer coatings after pulsed laser treatment
- C 2.49 **L. Shvartsburg, O. Yagolnitser, E. Butrimova**  
Integrated approach to providing for environmental friendliness and safety of the technological processes
- C 2.50 **V. Erofeev, R. Sharafiev, O. Grebenshchikova**  
Assessment of the bearing capacity of welded joints for an arbitrary character of failure
- C 2.51 **V.G. Khamyev, A.A. Gulyev, A.A. Boiko**  
Justification of the design of pneumatic sorting machine for the preparation of selection seeds
- C 2.52 **J. Matusov**  
Vector Optimization and Modeling of a Technical Systems
- C 2.53 **A.Yu. Izmailov, M.N. Moskovskiy, D.S. Podlesniy**  
Development of a set of working units from polymeric materials for the design of combine harvesters
- C 2.54 **A.S. Dorochov, M.N. Moskovskiy, M.M. Chaava**

Transporting devices for grain with new types of working units from polymeric materials.

- C 2.55 **A. Butovchenko, A. Dorochenko, I. Kotelnikova**  
Graph model development in the context of the grain cleaning machine
- C 2.56 **A. Doroshenko, A. Butovchenko, L. Gorgadze**  
The modeling of the process of grain material outflow from a hopper bin with a lateral outlet
- C 2.57 **Yu.I. Pimshin, Yu.V. Zayarov, I.Yu. Pimshin**  
Evaluation of the running parameters of the polar cranes installed in the NPP reactor compartments during their control assembly
- C 2.58 **O.A. Fomina, A.Yu. Stolboushkin**  
Development of a novel mold design for manufacturing of hollow ceramic products from coal wastes
- C 2.59 **K. Al-Jonid, A. Kozlov, N. Baryshev**  
Design of an expert system for the prediction and comprehensive diagnosis of CNC machining fault
- C 2.60 **V. Telegin, A. Kozlov, T. Shumilova**  
Development and Research of the Rotating Lever Object as a Dynamic Model of a Cycle Mechanism
- C 2.61 **F.V. Grechnikov, A.V. Kochetkov, O.V. Zakharov**  
Analysis of the Applicability of Filtration Methods for Coordinate Measurements
- C 2.62 **S. Lukina, M. Krutyakova, S. Ivannikov**  
Designing spline broaches of optimal structure
- C 2.63 **A.I. Boldyrev, A.A. Boldyrev, O.N. Fedonin**  
Processing of Parts for Aerospace Engineering
- C 2.64 **A.I. Boldyrev, A.A. Boldyrev, O.N. Fedonin**  
Strengthening of Materials by Vibroimpact and Combined Methods with Previous Electrochemical Processing
- C 2.65 **V.V. Ovchinnikov, I.A. Kurbatova, N.V. Uchevatkina**  
Investigation of the patent situation in the field of titanium alloy surface modification with high-energy flows
- C 2.66 **V. Ovchinnikov, E. Lukyanenko, S. Yakutina**  
Investigation of the effect of complex treatment on the wear resistance of titanium alloys
- C 2.67 **V. Klubnishkin, E. Klubnichkin**  
Experimental evaluation of the operational properties of snowmobile motor vehicles
- C 2.68 **E. Klubnichkin, V. Klubnichkin**  
Experimental evaluation of traction and coupling properties of snowmobile motor vehicles
- C 2.69 **R. Nasibullin, S. Valeyev, A. Galejev**  
Verification of the protective steam curtain model by means of experiment's results
- C 2.70 **E. Nosova, A. Baliakin, N. Galkina, V. Alekseev**  
Research of selective laser melting effect on mechanical properties of aluminum alloy Al-6Mg
- C 2.71 **G. Volkov, V. Smirnov**  
Systematization and comparative scheme analysis of mechanisms of planetary rotary hydraulic machines
- C 2.72 **R. Mavlioutov, O. Chubenko**  
Development of machine-building enterprises controlling
- C 2.73 **A. Golovko**

- Development of an algorithm for calculating the number of regrindings for a shaver with the continuous spiral cutting edge
- C 2.74 **G.M. Martinov, A.V. Stas, O.A. Kudinov**  
The approach of creating a particular postprocessor and using CNC measuring cycles
- C 2.75 **Максимов А.Б., Ерохина И.С.**  
Свойства стального толстолистового проката с градиентом механических свойств по толщине
- C 2.76 **Д. Галимов, Д. Ардашев, А. Дьяконов**  
Исследование характеристик твердого хромового покрытия на стальных деталях
- C 2.77 **Нелюб В.А.**  
Оценка качества технологий формования изделий из углепластиков
- C 2.78 **Нелюб В.А., Богачев А.А., Виговский В.И.**  
Технологии металлизации углеродных тканей и свойства углепластиков на их основе
- C 2.79 **Нелюб В.А., Бурченкова Т.Д., Славкина В.Э.**  
Современные технологии производства композитов на основе неорганических связующих
- C 2.80 **Е. Уагуаев**  
Determining deviations of output variables from forecast values in system for monitoring external round grinding process
- C 2.81 **Ромашков Е.В., Крылова С.Е., Приймак Е.Ю., Степанчукова А.В., Ромашкова О.А.**  
Разработка режимов термической обработки сталей для инструментальной штамповой стали горячего деформирования

### Стендовая сессия III (13 сентября)

- C 3.1 **E. Prusov, V. Deev, E. Rakhuba**  
Aluminum Matrix In-Situ Composites Reinforced with Mg<sub>2</sub>Si and Al<sub>3</sub>Ti
- C 3.2 **L.T. Dvornikov, V.A. Korneyev**  
Design of a device for rocks strength properties determining to solve the tasks of rock rock-cutting machines designmining machines
- C 3.3 **M. Bolotov, V. Pechenin, E. Kolchina**  
Investigation of the vibration state of the turbine rotor taking into account the influence of geometric accuracy of parts
- C 3.4 **P. Sorokin, A. Mishin, V. Antsev, A. Red'kin**  
System of Providing Sustainability of Tower Cranes from Overturn in Extreme Wind Loads
- C 3.5 **R.N. Khasanov, A.S. Valiev, I.R. Kuzeev**  
Assessment of mechanical characteristics of steel subject to cyclic loads effect on non-standard compact specimens
- C 3.6 **A. Golovko, S. Petrov**  
Definition of the initial information for selecting the cutting tool for automated production preparation
- C 3.7 **D.V. Terentyev, N.N. Ogarkov, S.I. Platov**  
Experimental Method of Calculation to Estimate the Thickness of Lubricating Film in the Friction Unit Depending on Oil Absorption of Contacting Surfaces
- C 3.8 **Hası Bekir ÖZERKAN**  
Investigation the effect of EDMed surface roughness on fatigue life

- C 3.9 **Hacı Bekir ÖZERKAN**  
Theoretical investigation of the effect of surface integrity on the fatigue life of turning austenitic stainless steels
- C 3.10 **L. Korolkova, N. Mashrabov, A. Murzin**  
Multi-Server Queue with Batch Arrivals
- C 3.11 **E. Inshakova, A. Inshakova**  
Nanomaterials in the Power Engineering Industry: Market Trends and Application Prospects
- C 3.12 **P. Kulakov, A. Rubtsov, V. Afanasenko, V. Gracheva**  
Technical condition parameters affecting the period of safe operation of technological pipelines
- C 3.13 **A.Yu. Popov, D.K. Muratov**  
Study of the Sealing Elements Impact on Air Flow Distribution in a Seed Vessel of Seeding Mechanism
- C 3.14 **R. Tukaeva, V. Afanasenko, P. Kulakov**  
Development of a technique of the automated construction of 3D models of standard mass transfer trays
- C 3.15 **I. Gulyaev, V. Kuzmin, E. Kornienko, S. Vashchenko, D. Sergachev**  
Microstructure formation properties of ZrO<sub>2</sub> coating by powder, suspension and liquid precursor plasma spraying
- C 3.16 **O.S. Zhelezkov, S.A. Malakanov, T.Sh. Galiahmetov**  
Application of the criterial approach for the choice of forming technology for rod fasteners
- C 3.17 **P. Ryabinkina, E. Bushueva, A. Nikulina**  
Structure and Properties of the Austenitic Steel Surface-doped with NbC
- C 3.18 **V. Pchelkin, T. Duyun**  
Wear-resisting properties of multilayer coated carbide blades under different technological conditions of turning of heat-resistant steel
- C 3.19 **L. Ishbulatov, S. Galyshev, P. Solovev, A. Aksenov**  
Simulation of the capillary action in via FlowVision software
- C 3.20 **D.L. Skuratov, D.V. Evdokimov, D.G. Fedorov**  
Mathematical model for determination of the most advantageous conditions for formation of parts of aerospace engineering on the operations of the end milling
- C 3.21 **D.L. Skuratov, D.G. Fedorov, D.V. Evdokimov**  
Mathematical model for determining rational machining conditions for flat grinding with the wheel periphery on machines with a rectangular table
- C 3.22 **A.N. Anoshkin, P.V. Pisarev, D.A. Ermakov**  
Numerical calculation of mechanical characteristics of composite materials with embedded piezoactive structural elements
- C 3.23 **I. Kovalev, V. Chekryzhov, A. Grigoriev**  
An approach to technological equipment performance information visualisation system construction using augmented reality technology
- C 3.24 **V. Golovkin, O. Batishcheva, V. Papshev**  
Increasing the efficiency of the process of inside threads tapping using ultrasonic vibrations
- C 3.25 **D. Kononov, A. Voznesenskaya, V. Morozov**  
Formation of anti-friction alloys on the metal materials surface by laser radiation
- C 3.26 **D. Kochetov, A. Voznesenskaya, A. Zhdanov**  
Influence of surface modification of granules of powder material on the dynamics of selective laser meltingfusion

- C 3.27 **A. Serguntsov, N. Malashikhin**  
Harrowing of sowings with synchronous additional fertilizing
- C 3.28 **R. Pushkov, E. Salamatin, S. Evstafieva**  
Method of developing parametric machine cycles for modern CNC systems using high-level language
- C 3.29 **A. Smirnov, S. Ponomarev, A. Vasin**  
Dense packing of poly-fractional powder of ceramic materials
- C 3.30 **A. Maslov, J. Batsaikhan**  
The research of the parameters of a vibration machine for composite materials compaction
- C 3.31 **V. Kokareva, A. Agapovichev, A. Sotov, V. Smelov, V. Sufiarov**  
Multi-criteria planning model of engines parts additive manufacturing
- C 3.32 **A. Avakov, E. Kosenko, I. Topilin, F. Kopilov**  
Analysis of methods of assessing the quality of protective paint car coatings
- C 3.33 **M. Shutikov, K. Ponomarev, A. Feofanov, T. Grishina**  
Digital technologies in questions of automated manufacturing management systems
- C 3.34 **A. Feofanov, N. Bondarchuk**  
Automated verification of compliance of technical documentation of an enterprise in the conditions of digital technology
- C 3.35 **V. Kasyanov, V. Deryushev, E. Kosenko, V. Kosenko, A.Y. Golubeva**  
Synthesis of methods and principles of ensuring the reliability of one-off and serial production machines
- C 3.36 **V. Kasyanov, V. Deryushev, L. Shulkin, E. Kosenko, A. Kotesova**  
Endurance tests of single machines production
- C 3.37 **N.V. Syreyschikova, V.I. Guzev**  
Planning the properties of coated abrasive by quality function deployment
- C 3.38 **R. Rzaev, A. Chularis, V. Smirnov, L. Semyenova**  
The influence of the friction stir welding parameters on the formation of welded joint of aluminum and copper alloys
- C 3.39 **E. Ageev, A. Altukhov, A. Novikov**  
Element composition of additive products from electroerosive cobalt-chromium powders
- C 3.40 **E.V. Ageev, A.Yu. Altukhov, A.N. Novikov**  
Porosity of products from electroerosive cobalt-chromium powders, obtained by additive technologies
- C 3.41 **A. Bardovsky, A. Gerasimova, A. Aydunbekov**  
The principles of the milling equipment improvement
- C 3.42 **O. Zhed, V. Kopylov, A. Koshelenko**  
Research on Optical Flat Models of Stresses in the Crankpin of Internal Combustion Engine
- C 3.43 **O. Zhed, V. Kopylov, A. Koshelenko**  
Organizational-economic conditions of maintenance of the accelerated development of machine-building branch
- C 3.44 **O. Vorontsova, I. Savon, S. Gritzunova**  
The influence of technology transfer on the formation of the innovative potential of the machine-building industry
- C 3.45 **S. Gorbatyuk, A. Pashkov, N. Chicheneva**  
Improved copper-molybdenum composite material production technology
- C 3.46 **A.V. Balyakin, A.N. Shvetcov, E.I. Zhuchenko**

Chemical polishing of samples obtained by selective laser alloying from titanium alloy Ti6Al4V

- C 3.47 **S.G. Glech, Y.E. Obzherin, M.M. Nikitin**  
Semi-Markov Model of a Technical System with Calendar Maintenance
- C 3.48 **Y.E. Obzherin, S.M. Sidorov, S.N. Fedorenko**  
Semi-Markov Model of a Technical System with the Component-Wise Instantly Replenished Time Reserve
- C 3.49 **I. Starodumov, V. Ankudinov, P. Galenko**  
Crystal structures predicted by the PFC method with atomic density fluctuations
- C 3.50 **D. Mashtalyar, K. Nadaraia, S. Sinebryukhov, S. Gnedenkov**  
Polymer-containing layers formed by PEO and spray-coating method
- C 3.51 **P. Maksimov, O. Smetannikov, A. Dubrovskaya, K. Dongauzer, L. Bushuev**  
Numerical simulation of aircraft engine parts additive manufacturing process
- C 3.52 **R. Sokolov, A. Venedictov, V. Novikov, S. Kulak**  
Effect of thermal influence on mechanical and relaxation magnetic characteristics of St3 steel
- C 3.53 **A.I. Kustov, V.M. Zelenev, I.A. Miguel**  
Evaluation of physical parameters of the surface layers materials after processing with the use of acoustic wave
- C 3.54 **T. Tarasova, G. Gvozdeva, R. Ableyeva**  
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