

Preface

IV International science and technical conference “Metal Physics, Mechanics of Material and deformation processes («METALDEFORM-2015») has been organized by Samara State Aerospace University (National research University)(SSAU) featuring Russian Federation Ministry of education and Science, Russian Fund of Fundamental Research, Samara Science Centre of Russian Academy of Science. It took place in September 14-17, 2015, in the city of Samara, Russia.

The aim of conference is to experience exchange between scientists, designers and technologists who work at vary fields of Mechanical Engineering. Area of their interest includes aerospace, automobile, transport, energy machine building.

Samara region has enormous potentials in mechanical engineering, metallurgy, aerospace, engine production, the automotive industry, has enormous energy resources.

Advanced research of materials and its structure transformation and properties behavior development at different impact methods are able to get powerful impulse if specialists present the research results in next direction of interest: plasticity theory, material science, metal pressure working, heat treatment, high energy impact, material quality assurance.

Main topics of conference were:

1. Metal Physics and Mechanics of Deformation Processes
2. Advanced and High-Energy Processes in Metal Pressure Working
3. Advanced Materials and Nanotechnologies
4. Tools and Machine Parts, Assurance of Materials Quality, Organization of Production

More than 200 participants from Russia, Germany, Kazakhstan, Taiwan, Japan, Poland, India and Ukraine took part in Conference work. Russian participants came from vary Universities and Production Plants and Shops of Moscow, St.-Petersburg, Samara, Volgograd, Rostov-Na-Donu, Ufa, Orenburg, Tyumen, Yekaterinburg, Tula, Ulyanovsk, Perm, Izhevsk and other cities.

The feature this conference was the wide participation of young scientists: Bachelors and Masters and Post-graduate students.