



Analysis and Design of Structures Made of Plastically Anisotropic Materials

Guest Editors:

Prof. Dr. Sergei Alexandrov

1. Laboratory of Technological Processes, Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences, 119526 Moscow, Russia
2. School of Mechanical Engineering and Automation, Beihang University, Beijing 100191, China

Prof. Dr. Lihui Lang

School of Mechanical Engineering and Automation, Beihang University, Beijing 100191, China

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Message from the Guest Editors

Plastic anisotropy arises from different metal-forming processes, such as the production of rolled sheets, drawn sheets, extruded billets, and others. The most important cause of the anisotropic properties is the preferred orientation of grains. However, a quantitative treatment of plastic anisotropy is possible without regards to its crystallographic origin using this or that anisotropic yield criterion and a flow rule. The anisotropic yield criterion has a great effect on the analysis and design of structures and machine parts. The orthotropic form of anisotropy is most common. In this case, the anisotropic properties have two-fold symmetry. Another important form of anisotropy demands that a material has rotational symmetry about of the principal axes of anisotropy.

This Special Issue of *Symmetry* features articles about analytical and numerical methods of analysis and design of structures and machine parts assuming that the material is plastically anisotropic. ...





Editor-in-Chief

Prof. Dr. Sergei Odintsov

ICREA, 08010 Barcelona and
Institute of Space Sciences (IEEC-
CSIC), C. Can Magrans s/n, 08193
Barcelona, Spain

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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Symmetry Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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