



PREFACE

The issue 2/2017 of the journal “Romanian Journal of Mechanics” is presenting a broad perspective regarding the diversity of research driven by the need to perform predictions of the behavior of systems and materials starting with the higher harmonics and the focusing of ultrasonic waves and ending to the structural stability and chaotic behavior of systems. One of the important mechanical properties of materials is the Poisson’s ratio, which is positive for most of the materials. But certain materials exhibit a negative Poisson’s ratio and these materials are called auxetic. One of the article is studying the effect of the plasticity on the auxetic behavior. Thus, auxetic and non-auxetic materials exhibit different deformation mechanisms.

Probably not first of all, this issue discussed new computational aspects for simulation of wave propagation in inhomogeneous media such as the layered plates. This method is called *the local interaction simulation approach* (LISA) and proved efficiency and flexibility, especially in conjunction with parallel processing .

We are grateful to reviewers for the time and effort they spent evaluating the papers.

Editors