



ADMISSION TO DOCTORAL STUDIES Session September 2022

Field of doctoral studies: Mathematics

Doctoral supervisor: Marin Marin

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1: Vibrations in porous media with microstructure

Content / Main aspects to be considered - *to be adapted/ completed/ deleted*

Vibrations are defined in a general, abstract form. These are then adapted for porous media with microstructure. Some types of vibrations and the importance of studying them can be approached

Recommended bibliography:

- 1.M. Marin, Ecuatii cu derivate parţiale, Editura Tehnică, Bucureşti, 1998. (in Romanian)
2. D. Ieşan, Mecanica generalizată a solidelor, Centrul de multiplicare, Universitatea Al.I. Cuza, Iaşi, 1973. (in Romanian)
- 3.S. Chiriţă, Mecanica mediilor continue, Editura Matrix Rom, Bucureşti, 2010. (in Romanian)

TOPIC 2: The partition of energies in porous media

Content / Main aspects to be considered - *to be adapted/ completed/ deleted*

The main types of energy that characterize a continuous media are defined. The evolution of these energies and the effect on the behavior of porous media are studied.

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- 1.M. Marin, Ecuatii cu derivate parţiale, Editura Tehnică, Bucureşti, 1998. (in Romanian)
2. D. Ieşan, Mecanica generalizată a solidelor, Centrul de multiplicare, Universitatea Al.I. Cuza, Iaşi, 1973. (in Romanian)
- 3.S. Chiriţă, Mecanica mediilor continue, Editura Matrix Rom, Bucureşti, 2010. (in Romanian)

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