

MEMORIUL ȘTIINȚIFIC

Subsemnatul Tudor Boacă, student doctorand în cadrul SCOSAAR, Școala Doctorală de Științe Matematice și Informatică, înmatriculat la data de 1.11.2017 în domeniul de studii universitare de doctorat Matematică, la conducătorul de doctorat C.S. I Dr. Gabriela Marinoschi, autor al tezei de doctorat cu titlul *Inverse problems with applications to diffusion and transport in porous media*, declar următoarele activități realizate în cadrul stagiului doctoral:

A. Lista de lucrări științifice

1. **Boaca, T.**, Boaca, I., A nonlinear single phase mud filtrate invasion model, J. Petr. Sci. Eng. 168 (2018) 39-47 (actualmente Geoenery Science and Engineering, Scor relativ de influență 2025 = 3.489, Factor relativ de impact 2025 = 1.586);
2. **Boaca, T.**, An identification problem related to mud filtrate invasion phenomenon during drilling operation, Inverse problems in science and engineering, 29 (12) (2021) 2401-2428 (actualmente Applied Mathematics in Science and Engineering, Scor relativ de influență 2025 = 1.875, Factor relativ de impact 2025 = 0.758).
3. **Boaca, T.**, Identification of the minimum value of reservoir permeability in nonlinear single phase mud filtrate invasion model, Nonlinear Analysis: Real world applications 59 (June 2021) 103274 (Scor relativ de influență 2025 = 1.660, Factor relativ de impact 2025 = 1.059).
4. **Boaca, I.**, Nedelcu, A., Birlan, M., Boaca, T., Anghel, S., Mathematical algorithm for the dark-flight trajectory of a meteoroid, Romanian Astronomical Journal, 31 (2) (2021) 171-183 (Scor relativ de influență 2025 = 0.081, Factor relativ de impact 2025 = 0.064).
5. Boaca, I., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Characterization of the fireballs detected by all-sky cameras in Romania, The Astrophysical Journal, 936 (150) (2022) (Scor relativ de influență 2025 = 2.383, Factor relativ de impact 2025 = 1.149).

B. Cărți și manuale

C. Participări la conferințe/workshop-uri

1. Boaca, I. L., Nedelcu, A., Birlan, M., **Boaca, T.**, and Anghel, S., Trajectory and dark-flight estimation for meteoroids detected by the MOROI network. European Planetary Science Congress 2021, 13--24 September 2021, online.
2. Boaca, I.L., Nedelcu, A., Birlan, M., **Boaca, T.**, Anghel, S., Trajectory reconstruction of meteors detected by the MOROI network. IAU Symposium, Multi-scale (time and mass) dynamics of space objects 18--22 October 2021 Iasi, Romania.
3. Boaca, I., Nedelcu, A., Birlan, M., **Boaca, T.**, Anghel, S., Dark flight trajectory of meteoroids detected by the MOROI network. Viewpoints in Astronomy, Astrophysics, Space and Planetary Sciences 28--29 October 2021 Cluj, Romania.

4. Boaca, I., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, I.**, The interaction of meteoroids with the atmosphere. EGU General Assembly 2022, 23--26 May 2022, Vienna, Austria.
5. . Boaca, I., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, T.**, Fireball events detected by the all-sky cameras in Romania. Theory, Observations and Data Processing in Astronomy, Astrophysics, Space and Planetary Sciences, 06--08 July 2022 Cluj, Romania.
6. Boaca, I., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Heliocentric orbits of fireballs from the MOROI project. 85th Annual Meeting of The Meteoritical Society - MetSoc 2022, 14-19 August 2022, Glasgow, United Kingdom.
7. Boaca, I., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Analysis of luminous trajectories of fireballs recorded in Romania. 85th Annual Meeting of The Meteoritical Society - MetSoc 2022, 14-19 August 2022, Glasgow, United Kingdom.
8. . Boaca, I., Moilanen, J., Gritsevich, M., Birlan, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Analysis of the meteorite-producing fireballs registered by the MOROI component of the FRIPON network. Europlanet Science Congress, 18-23 September 2022, Granada, Spain.
9. Boaca, I., Gritsevich, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., FRIPON grazing fireball event detected by MOROI cameras, The 28th IUGG General Assembly, Berlin, Germany, 11-20 iulie 2023.
10. Boaca, I., Gritsevich, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Meteoroid properties based on the luminous part of its atmospheric trajectory, 20th Electromagnetic and Light Scattering Conference, Almuñecar, Spain, 15-19 may 2023.
11. Boaca, I., Gritsevich, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Analysis of fireball events recorded in Romania, AbGradEPEC, La Palma, Spain, 4-6 may 2023.
12. Boaca, I., Gritsevich, M., Nedelcu, A., **Boaca, T.**, Colas, F., Malgoyre, A., Zanda, B., Vernazza, P., Physical parameters of meteoroids, EGU23 General Assembly, Viena, Austria, 23--28 April 2023.

D. Brevete

E. Proiecte

F. Stagii de cercetare/perfecționare

G. Cursuri de perfecționare

H. Alte activități

1. În 2018 mi s-a decernat premiul „Gheorghe Munteanu- Murgoci” al Academiei Române pe anul 2016 pentru lucrarea: I. Mălureanu, **T. Boaca**, Daniela-Doina Neagu, New relations of water saturation's calculus from well logs, Acta Geophysica 64 (2016) 1542-1562.

Student-doctorand

