

# Andrei Marin

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## EDUCATION

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**M.S. in Theoretical and Computational Physics** *University of Bucharest, Faculty of Physics* 2024-

**B.S. in Physics** *University of Bucharest, Faculty of Physics* 2021-2024

Three years average grade: 10/10;

Bachelor thesis on "Elements of criticality and optimization in atmospheric convection"

**Exchange student** *University of Glasgow, School of Physics and Astronomy* Sep 2023 - Dec 2023

## EXPERIENCE

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**Horia Hulubei National Institute of Physics and Nuclear Engineering** | *Department of Theoretical Physics*

Research Assistant: Nov 2024 -

Physics & Chemistry Assistant: Jul 2024 - Sep 2024

- Working on integrable systems and nonlinear wave equations

**Centre de physique des particules de Marseille** | *Intern, Department of Cosmology* Aug 2022 - Sep 2022

- Worked in the development of code for cosmological measurements based on Baryonic Acoustic Oscillations

## PARTICIPATION IN INTERNATIONAL EVENTS

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### Schools

- CERN – SEENET-MTP – ICTP School on Field theory and applications in HEP, 9-16 June 2024, Thessaloniki, Greece

## LANGUAGES

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**English** Professional knowledge - *CEFR C1*

**Romanian** Native speaker

**French** Good knowledge - *CEFR B2*

## SCIENTIFIC ACTIVITY

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### Publications

- *Why the turbulent buoyant plumes evolve to round cross sections? A 'Constructal' view*, **A. Marin**, C. V. Vraciu, International Communications in Heat and Mass Transfer, Vol. 146, Article No. 106947 (2023)
- *Polarization of Charged Spherical Dielectric Core-Shell*, **A. Marin**, O. Ianc, T. O. Cheche, Romanian Journal of Physics, Vol. 68, Article No. 104 (2023)

### Presentations

- Constructal Law Conference, Bucharest, 10-11 October 2024, **A. Marin**, C. V. Vraciu, *The evolution of the turbulent buoyant plumes towards round cross sections: a constructal view*
- European Geosciences Union General Assembly, Vienna, 23-28 April 2023, **A. Marin**, C. V. Vraciu, *On the organization of passive shallow cumulus clouds*
- American Geophysical Union Fall Meeting, Chicago (online participation), 12-16 December 2022, **A. Marin**, C. V. Vraciu, *An EDMF parameterization for the dry boundary layer with an energy-consistent plume model*

## EXTRACURRICULAR ACTIVITIES

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**Trans-Carpathian Student Circle on Mathematical Physics** | *website* 2024 -

- Group coordinator for Romania
- Working on a project on Integrability in discrete dynamical systems (Singularity approach)