

Bucharest 2025 PhD School:
“Modern Methods in Quantum Gravity and Cosmology”
July 1-6, 2025, Bucharest-Magurele, Faculty of Physics

Invited lecture, July 6, 2025

GORAN DJORDJEVIC
University of Nis, Serbia
Executive Director of SEENET-MTP

SEENET-MTP PhD Program and Primordial Black Hole Formation

Abstract: The Southeastern European Network in Mathematical and Theoretical Physics (SEENET-MTP) was established in 2003, and since its foundation, the training of students and young researchers has been one of its main goals and activities. The joint CERN–SEENET PhD program started in 2015 and has already included hundreds of students. This paper presents a short review of the Third cycle of the program, which began in 2024 and is already being implemented, with further activities planned for the coming years.

In the second part, special emphasis will be placed on a pedagogical introduction to current research for candidates working on (cold) dark matter (CDM), specifically the modeling and estimation of primordial black hole (PBH) production in the early universe.