

Joint Seminar: "Geometry&Physics"-DFT (IFIN-HH) and "Geometry"-IMAR
([Geometry&Physics Homepage](#)) ([Geometry Homepage](#))

Seminar organizers: Mirela Babalic (NIPNE) & Sergiu Moroianu (IMAR)

Zoom link: <https://us02web.zoom.us/j/891199217919>

Date: Wednesday, March 24, 2021, 17:00 Bucharest time (15:00 GMT)

Title: **Mathematical Supergravity and its applications to differential geometry**

Speaker: **Carlos Shahbazi** (University of Hamburg, Dept. of Mathematics)

Abstract: I will discuss the recent developments in the mathematical theory of supergravity that lay the mathematical foundations of the universal bosonic sector of four-dimensional ungauged supergravity and its Killing spinor equations in a differential-geometric framework. I will provide the necessary context and background, explaining the results pedagogically from scratch and highlighting several open mathematical problems which arise in the mathematical theory of supergravity, as well as some of its potential mathematical applications. Work in collaboration with Vicente Cortés and Calin Lazaroiu.