



**Seminar: Division of Nuclear Energy and Environmental Studies (UZ3)
Department of Complex Systems (DUZ)
Tuesday: 11.03.2025, 11:30 AM**

Hybrid seminar: room 172, building 39 (Cyfronet, 3rd floor)

Online broadcast: <https://www.gotomeet.me/NCBJmeetings/uz3-and-phd4gen-seminars>

Speaker: in person

Mateusz Nowak
NCBJ

Introduction and overview of STACY software

Abstract:

The Source Term Analysis Code System (STACY), is a software for calculating fission product release in HTGR reactors. It is part to the VOSP (Very Old Super Programs) group of programs. Building on earlier software such as FRESCO-I, FRESCO-II, PANAMA, and SPATRA, the STACY framework was upgraded using FORTRAN 95/2003 to facilitate more comprehensive evaluations, which include estimating source terms, determining the failure rates of coated particles (TRISO), and analyzing temperature profiles for varying pebble radii. In 2016, STACY was integrated as a module within the V/HTR Code Package (HCP).

During the presentation, the principles of STACY software will be presented. The presentation will also include a description of the software written in Python to perform preprocessing, run calculations, and analyse results. At the end, sample results for the compact HTGR core will be presented.

You are cordially invited,
Tomasz Kwiatkowski, Mariusz Dąbrowski

Bio:

Dr inż. Mateusz Nowak – is a research-technical specialist in thermal-hydraulic analyses for nuclear reactors at the National Center for Nuclear Research.