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## Seminarium Zakładu Energetyki Jądrowej i Analiz Środowiska (UZ3) Departament Badań Układów Złożonych (DUZ)

Wtorek: **07.06.2022**  
**11:30**

**Nairi Baghdasaryan**

### **Benchmarking FRAT: Chinese code for TRISO fuel performance analysis**

#### **Abstract:**

Fuel performance analysis of TRISO particles are the basis of setting operational and safety limits for HTGRs. Although several experiments were conducted in the past (and some are still ongoing) for understanding all the processes ongoing in TRISO fuel (during operational and accidental conditions), some questions still remain open.

In order to promote the exchange of technical information on the national program in the field of gas cooled reactors, the coordinated research program (CRP) on Advances in HTGR Fuel Technology was organized by IAEA. The 6th part of this program is addressed to fuel performance analysis of TRISO particles, for benchmarking the tools and data which are used by participating countries.

The main objective of my research is to quantify the uncertainties of different methods/models used in TRISO fuel performance analysis from the safety perspectives. For those analyses, I am using the Chinese FRAT code, and the first step is the verification of the code.

During the seminar, I will talk about the CRP-6 benchmark, the capabilities of FRAT code, the first results of using FRAT against the CRP-6 benchmark, and the scope of my next calculations.

Serdecznie zapraszamy  
M. Dąbrowski, T. Kwiatkowski  
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