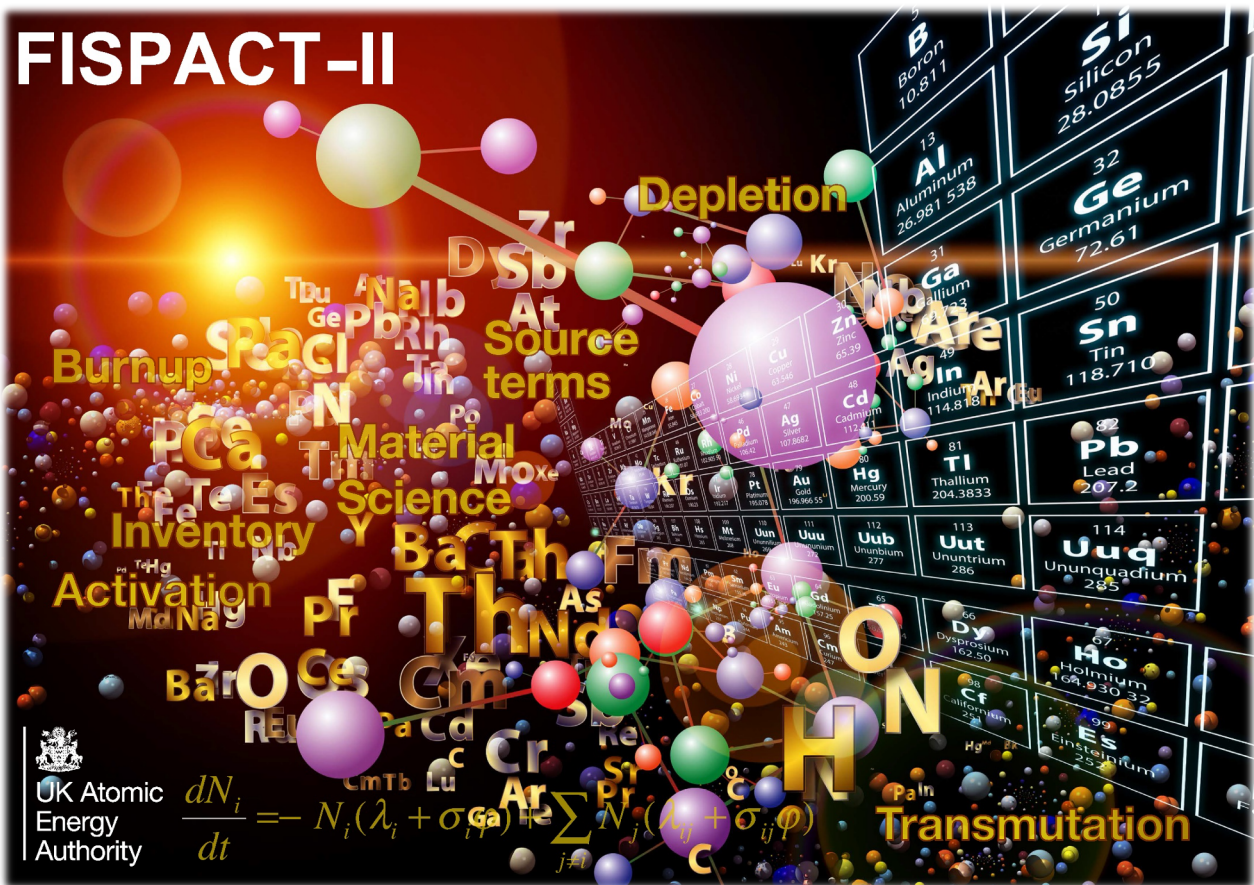


# FISPACT-II



FISPACT-II (currently at release version 5.0) is an enhanced multi-physics platform providing a wide variety of advanced simulation methods and employing the most up to date, TENDL-2019, ENDF/B-VIII.0, JENDL-4.0, JEFF-3.3, etc., enhanced nuclear data forms for neutron, proton, alpha, deuteron, or gamma particles interactions. FISPACT-II has applications in:

- Magnetic and inertial confinement fusion
- Advanced fission Gen IV and beyond
- Advanced energy and fuel systems
- High energy and accelerator physics
- Medical applications, isotope production
- Earth exploration, astrophysics
- Homeland security, materials science
- And more...

<http://fispact.ukaea.uk/>

This workshop will provide step-by-step demonstrations of FISPACT-II usage, backed up by application examples. We will also introduce the newly developed FISPACT-II API (currently in beta release with version 5), which provides advanced interface options.

# Tentative Agenda

Day one: 9:00-12:00, 14:00-17:00

- Session 1
  - Introduction to FISPACT-II: An advanced simulation platform for nuclear observables
  - Demo: construction of basic input file & use on different operating systems
- Session 2
  - Usage example: waste/activation assessment
  - Demo: introduction to FISPACT-II API

Day Two: 9:00-12:00, 14:00-17:00

- Session 3
  - Usage example: decay-heat validation with uncertainties
  - Demo: nuclear data source selection & application to experimental comparison; uncertainty quantification
- Session 4
  - Case study: Self-shielding & spatial variation – tungsten in fusion
  - Demo: self-shielding & transmutation

Day Three: 9:00-12:00, 14:00-17:00

- Session 5
  - Advanced application: an introduction to the calculation of shutdown dose rates
  - Demo: advanced operational scenarios using pulses
  - Demo: Pathway analyses
- Session 6
  - Open question and feedback

FISPACT-II license can only be granted to eligible personnel of OECD NEA data bank member countries organisation.