

**The ADAS Workshop**  
**9-11<sup>th</sup> December 2018**  
**Physikzentrum, Bad Honnef, Germany**

**Sunday 9<sup>th</sup> December**

19:00            Social Dinner

**Monday 10<sup>th</sup> December**

09:15 – 09:30    Martin O'Mullane/Dmitriy Borodin  
                      Welcome, introduction of participants and agenda adoption.

**Session 1: General reports and new perspectives**

09:30 – 10:00    Oleksandr Marchuk  
                      Atom-atom collisions at plasma surface interface as the most natural mirror  
                      laboratory and application for ITER

10:00 – 10:30    Peter Bochsler  
                      Application of ADAS data for diagnostics of the solar wind

10:30 – 11:00    Diana Naydenkova  
                      COMPASS-upgrade and possible spectroscopic measurements

11:00 – 11:30    Coffee break

11:30 – 12:00    Adam Foster  
                      Atomic Data requirements for upcoming X-ray missions

12:00 – 12:30    Martin O'Mullane  
                      Intermediate coupling GCR population model

12:30 - 14:00    Lunch

**Session 2: Molecules and Tungsten**

14:00 – 14:30    Ewa Pawelec  
                      Molecular bands in JET plasma - modelling and experimental data

14:30 – 15:00    Ioan Schneider  
                      Electron-driven reactivity of molecular cations: H<sub>2</sub><sup>+</sup>, BeH<sup>+</sup>, CH<sup>+</sup>, ArH<sup>+</sup> and He<sub>2</sub><sup>+</sup>

15:00 - 15:30    Aleksander Drenik  
                      Ammonia formation in N<sub>2</sub>-seeded discharges at JET and ASDEX Upgrade

15:30 - 16:00    Coffee break

- 16:00 – 16:30 Stephan Ertmer  
High resolving spectroscopy on high Z materials at the linear plasma device PSI-2
- 16:30 – 17:00 Alina Eksaeva  
Validation of the new MS-resolved ADAS dataset for W by ERO2.0 simulation of spectroscopy at PSI-2 linear plasma device
- 17:00 – 17:30 Stuart Loch  
Update on atomic data for neutral W for applications in high-Z PFCs.
- 18:15 - 18:45 Steering committee meeting (closed session)
- 19:00 Dinner

## **Tuesday 11th December**

### **Session 2: Uncertainty in data and models**

- 09:00 - 09:30 Kerry Lawson  
D and He atomic physics data used in the EDGE2D code
- 09:30 - 10:00 Stuart Loch  
Assigning uncertainties on fundamental atomic data
- 10:00 - 10:30 Simon Preval  
Noble-Gas Recombination Rate Coefficients for use in modelling astrophysical, and magnetically confined fusion plasmas
- 11:00 - 11:30 Coffee break
- 11:30 – 12:00 Dmitriy Borodin  
Atomic and molecular data needed for interpretation of plasma-surface interaction experiments
- 12:00 - 12:30 Yang Yang  
W and Mo spectroscopy of EBIT relevant to Fusion plasma
- 12:30 - 13:00 Karol Koziol  
Multi-Configuration Dirac-Hartree-Fock and Configuration-Interaction study of 4d-3p x-ray transitions in Cu- and Ni-like tungsten ions relevant to the diagnostic of high-temperature tokamak plasmas
- 13:00 - 14:30 Lunch

### **Final session: ADAS matters**

14:30 - 15:30 Martin O'Mullane  
Update on ADAS codes, new data, OPEN-ADAS and activities

15:30 - 16:30 All  
General discussion on the role and future of ADAS/ADAS consortium in fusion.

End of workshop

Depart or Dinner at 19:00

### **Wednesday 12th December**

9:00 Depart for seminar at Forschungszentrum Jülich.

11:00 Stuart Loch  
Plasma spectral diagnostics for applications in fusion, astrophysical, and low temperature laboratory environments