**Subproject "PSI and SOL Modelling (SP D)"**

**EUROfusion Work Package "Plasma-Wall Interaction & Exhaust (PWIE)"**

**Kick-Off-Meeting 2021 (schedule according to CEST)**

**Monday 21st June 2021**

**Welcome and introduction to WP PWIE**

9:00 - 9:05 Welcome

 *A. Kirschner*

9:05 - 9:20 Introduction into WP PWIE

 *S. Brezinsek*

**SP D1 "Plasma boundary modelling"**

9:20 - 9:30 Modelling of plasma background plasmas: linear devices

 *J. Gonzalez-Munoz,* *E. Westerhof*

9:30 - 9:40 Modelling of plasma background plasmas: GyM

 *M. Passoni*

9:40 - 9:50 Plasma background parameters of AUG and JET-ILW

 *H. Kumpulainen, N. Horsten, M. Groth*

**SP D2 "Production of atomic/molecular and surface data"**

9:50 - 10:00 Calculation of rate coefficients for ionization/excitation, MD simulations

 *M. Probst*

10:00 - 10:10 Upgrade of AM database and CRM for molecules

 *A. Holm, M. Groth*

**SP D.3 "Impurity Migration Modelling"**

10:10 - 10:20 ERO modelling of erosion, migration in GyM and AUG

 *M. Passoni*

10:20 - 10:30 Dynamic morphology studies, comparison with ion beam experiments, ERO modelling for 13CH4 injection in W7-X, Tungsten and beryllium erosion, migration, deposition modelling

 *D. Reiser, A. Kirschner*

10:30 - 10:40 ERO modelling for AUG erosion experiments - H mode in He, D

 Impurity migration modelling (N, W, Be) for JET-ILW and AUG

 *A. Hakola*

**SP D.4 "Neutral Particles Modelling"**

10:40 - 10:50 Post-processing of plasma modelling with SOLPS or OSM/EIRENE to get neutral fluxes to the walls

 *H. Kumpulainen, M. Groth*

**Monday 28th June 2021**

**Welcome and introduction to WP PWIE**

9:00 - 9:05 Welcome

 *A. Kirschner*

9:05 - 9:20 Introduction into WP PWIE

 *S. Brezinsek*

**SP D1 "Plasma boundary modelling"**

9:20 - 9:30 Modelling of plasma background plasmas: W7-X and PSI-2

 *S. Xu*

9:30 - 9:40 Characterisation of emissive and collisional sheath

 *D. Tskhakaya*

9:40 - 9:50 Semi-empirical analytic expressions of emitted current escaping from W surfaces

 *L. Vignitchouk,* *S. Ratynskaia*

9:50 - 10:00 Modelling of background plasmas: WEST

 *G. Ciraolo, Y. Marandet*

**SP D2 "Production of atomic/molecular and surface data"**

10:00 - 10:10 Development of dust formation models

 *A. Michau*

10:10 - 10:20 SDTrimSP related modelling of erosion including morphology, roughness, fuzz

 *Ch. Cupak, F. Aumayr,*

10:20 - 10:30 Model development of production mechanisms of dust formation from melting

 *L. Vignitchouk,* *S. Ratynskaia*

10:30 - 10:40 Production of erosion yields for redeposited W in comparison to bulk W, Development of machine learning for interatomic W potentials, Production of erosion yields and reflection coefficients for rough W surfaces

 *K. Nordlund*

10:40 - 10:50 SDTrimSP-3D based erosion modelling considering roughness, morphology

 *U. von Toussaint*

**SP D.3 "Impurity Migration Modelling"**

10:50 - 11:00 WallDYN modelling for full tungsten W7-X,

 WallDYN modelling with realistic 3D ITER wall

 *K. Schmid*

11:00 - 11:10 ERO modelling of W transport in WEST in He and D

*G. Ciraolo, N. Fedorcak*