

Introduction to the WIMAS Activities (5' + 5')

David Coster





This work has been carried out within the transeverk of the EURD/fusion Consentium and has received funding from the Euratem research and training programme 2014-2018 under grant agreement. No 633053. The views and agintons expressed herein do not necessarily reflect those of the European Commission.

WIMAS: Adaptation of Workflow in IMAS



Task	Description	Coordinator	PPY
WIMAS-0	Coordination of IMAS related developments 2019	David Coster	
WIMAS-1	Equilibrium reconstruction and stability chain deployment in IMAS	Rui Coelho	1.4 (1.4)
WIMAS-2	ETS core transport simulator with improved physics capabilities in IMAS	Thomas Jonsson	4.1 (2.5)
WIMAS-3	Turbulence with synthetic diagnostics workflows in IMAS	Anders Nielsen	0.8 (0.7)
WIMAS-4	Heating and current drive modules in IMAS	Thomas Jonsson	1.2 (1.85)
WIMAS-5	Pedestal/SOL and core-edge integration in IMAS	David Coster	0 (1.2)
WIMAS-6	AMNS data and interfaces in IMAS	David Coster	1.1 (0.8)
WIMAS-7	Plugins and support for visualization tools in IMAS	Leon Kos	0.4 (0.4)
WIMAS-8	Synthetic diagnostics in IMAS	Erik Andersson Sunden	0.7 (0.85)

Working Sessions and Code Camps



Main Activity	Dates	Place	Main Participants
WIMAS-2/4 WS	Jan 27 - 31	Chalmers, Gotheborg	WIMAS Team
Annual Planning meeting	Feb 24 - 28	ENEA, Frascati	All
WIMAS-1/2/3/4 WS	Mar 23-27	Risø, Denmark	WIMAS Team
Summer General Code Camp	June 8 - 19	DIFFER, Eindhoven	All
EWE-2 / WIMAS-1 WS	tbd	ITER	EWE-2, WIMAS-1 Teams
???	???	???	???

Attendance at other events as needed Additional bilateral exchanges also possible.

List of WIMAS Tasks



- **► Task WIMAS-0:** Coordination of the porting in IMAS of existing workflows
- ➤ Task WIMAS-1: Equilibrium reconstruction and stability workflow deployment in IMAS
- ➤ Task WIMAS-2: ETS core transport simulator with improved physics capabilities in IMAS
- **► Task WIMAS-3:** Turbulence with synthetic diagnostics workflows in IMAS
- ➤ Task WIMAS-4: Heating and current modules in IMAS
- ➤ Task WIMAS-5: Pedestal/SOL code development and core-edge workflow in IMAS
- ➤ Task WIMAS-6: AMNS data and interfaces on IMAS (atomic / molecular/ nuclear data)
- **➤ Task WIMAS-7:** Visualization tools on IMAS (plugins)
- **➤ Task WIMAS-8:** Synthetic diagnostics on IMAS

Some things to discuss



Workflows

- MHD reconstruction
- MHD stability
- ETS
- Turbulence

Other

- Synthetic diagnostics
 - 1. Need to identify which synthetic diagnostics are needed and can/should be implemented
- AMNS
 - 1. Need to identify AMNS needs

Challenges

- In parallel: support existing CPO versions (manpower divided)
- Need to consider-how much effort on ETS-5 vs ETS-6
- Strategic decision: Kepler vs Python