

RAPTOR Code Development plan (2019-...

F. Felici, February 2019

In progress, with assigned resources:

- * QLKNN transport module to predict T_e , T_i , n_e , rotation, impurity transport (Enabling Research projects let by J. Citrin) - early 2019
- * Simulation of impurity species evolution (P. Manas Eurofusion Researcher Grant grant, 2020)
- * Finalise coupling to RABBIT for fast NBI evaluation (MST1 work, M. Weiland et al) - early 2019
- * Two-way coupling with equilibrium code LIUQE (SPC internal work, 2019)
- * Applications for scenario simulation/discharge optimisation on various machines (AUG, TCV, DEMO, JET) (2019,...)

Not planned nor resourced, but on wishlist:

- * Coupling to fast pedestal model (e.g. EPED-NN)
- * Fast alpha particle module?
- * Fast ICRH module (possibly with CEA, learning from METIS)
- * Fast LHCD module (possibly with CEA, learning from METIS)
- * Add analytical model for divertor/SOL plasma