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The ITER Integrated Modelling Programme SIMON PINCHES,

ITER Organization — A major element of the ITER Physics Research Programme is the establishment of an integrated modelling programme, including benchmarking and validation activities. The overall aims of this programme are to meet the initial needs of the ITER project for more accurate predictions of ITER fusion performance and for efficient control of ITER plasmas, to support the preparation for ITER operation and, in the longer term, to provide the modelling and control tools required for the ITER exploitation phase. The Integrated Modelling & Analysis Suite (IMAS) is expected to evolve toward a more self-consistent description as the ITER Research Programme progresses. This will require the coupling of diverse spatial and temporal scales, and the dynamic coupling of physics models relevant in each domain. An initial application for prototyping the IM infrastructure and developing the tools required for pulse preparation is the capability to undertake co-simulations involving a Plasma Simulator and the Plasma Control System Simulation Platform. The present status of the IM infrastructure will be presented together with the plans for future development. The views and opinions expressed herein do not necessarily reflect those of the ITER Organization.

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