

**Atomic Physics and Magnetically Confined Fusion**  
**ADAS: The Atomic Data and Analysis Structure**

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The talk reviews the need, use and application of atomic physics for magnetically confined fusion in light of coordinated development in the world fusion program as we all move towards ITER. This review will principally be from the view of the Atomic Data and Analysis Structure (ADAS) - a project which has supplied atomic data and modelling capabilities to the worldwide fusion community for over two decades.

The talk will seek to span from fundamental atomic data as produced by traditional atomic physicists to derived atomic as required for diagnostic and modelling purposes. The role of ADAS in bridging this gap will be highlighted.

Particular emphasis will be given to the topical issue of charge exchange recombination spectroscopy at FOM.