

Fusion, ITER and the Science Challenges.

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ITER is expected to deliver 500MW of fusion power for many hundreds of seconds. This will be a decisive demonstration that fusion is possible and provide the basis for the construction of the first demonstration reactor. Nonetheless there is plenty of room for improved fusion performance – indeed many expect ITER to exceed its baseline. Much of the optimism is based on the remarkable results from experiments in the last decade – these results will be discussed. I will review the remaining scientific challenges and the promising routes to improved performance.