



J5

Parallel session

Science

4 July

15:40 to 16:50

STCC, Auditorium A



ORGANIZER



Olivier Dessibourg

MODERATOR



Eric Hand

SPEAKER

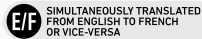


Bernard Bigot

The frustrating quest for fusion energy

Fusion energy—safe, carbon-free and essentially limitless—could be a game-changer for a society battling climate change. Yet the reactions that power the sun are hard to harness; it is sometimes said that fusion will always be 30 years away. As director-general of ITER, Bernard Bigot leads the machine that could finally demonstrate fusion's viability.

The \$25 billion ITER, under construction in Cadarache, France, is expected to open in 2025 after years of delays and cost overruns. In 2035, the reactor will begin fusing deuterium and tritium, both isotopes of hydrogen, within an unruly plasma reaching hundreds of millions of degrees. "D-T" is the fuel of choice for reaching the elusive breakeven point—generating as much energy as is consumed. ITER is expected to be the first fusion reactor to smash through that barrier, with a 10-fold return on the input energy. It is also designed to create a long-lived "burning plasma", sustained by its own heat. Bigot will be interviewed by Eric Hand, Science magazine's European news editor. A moderated Q&A will follow the interview.



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