



COLLOQUIA 2018-2019

Giovedì 24 Gennaio 2019

Aula 102 "L. Giulotto", ore 16.00

Dipartimento di Fisica, via Bassi 6, Pavia

Roadmap to energy from nuclear fusion

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Abstract: Fusion energy can play a crucial role for the electricity production without greenhouse gases emission. The fuel is virtually unlimited, the process is intrinsically safe and the radioactivity that is produced has a short life: after 100 years after the reactor shutdown all the materials can be in principle recycled in a new reactor. The seminar will review the status of research in this field and the main challenges that must be overcome to make fusion a commercial energy source such as: the achievement of a net energy gain, the control of plasma instabilities, the development of materials to withstand high heat and neutron fluxes, the achievement of fuel self sufficiency and the design of a power plant that incorporates all the main technologies. The seminar will also outline the main opportunities in support of the PhD and Post Doc programs together with look into the future with a discussion of some open problems.

