

Seminar general

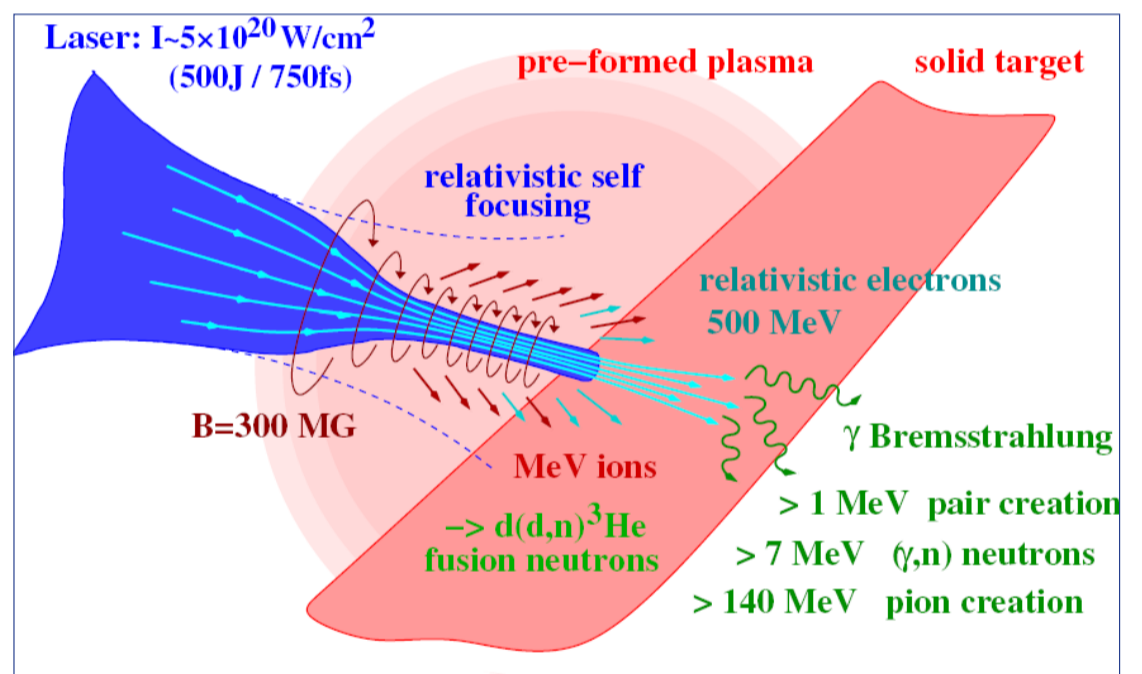
What is the Future for Ultra-High Intensity Laser Science?

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For more than 10 years now high intensity lasers reaching petawatt energies have and are being built around the world. These projects have largely been pioneered by laser technologists but now new ultra intense lasers reaching exawatt and even zetta power levels are being discussed. These projects are likely to reach costs of a billion euros and so lasers are no longer relatively cheap technology.



What are these lasers being built for? This is a somewhat sensitive and awkward question but I believe it is a question that taxpayers around the world are beginning to ask and we who are in the field must be prepared to answer.

I will attempt to answer this question. The audience can in the end decide if the science is robust enough to justify the huge costs of building these lasers. The applications I shall discuss will be applications to particle physics, nuclear physics, cancer therapy and mainland security.

This talk will be given at a level where no previous knowledge is necessary and will be suitable for practising nuclear and particle physicists as well as students.

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