



## Hartmut Zohm

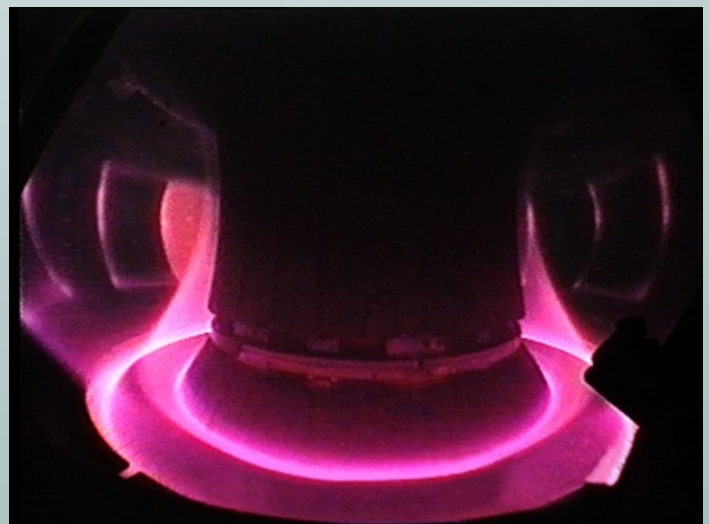
Max Planck Institute for Plasma Physics,  
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### Fusion Research - bringing the power of the Stars to Earth?

Fusion of hydrogen nuclei is the energy source of the stars. For more than 50 years, researchers have been working to make this process usable on Earth. The potential of an almost unlimited energy source for baseload consumption has its appeal: the primary fuels deuterium and lithium are abundant on Earth, and the resulting radioactive waste is much less critical than that of fission power plants. Could this make an important contribution to solving the world's energy problem?

Based on the description of the 'fusion reactor sun', the lecture will show how a fusion power plant should be realized on earth. In particular, the confinement of hot hydrogen plasmas in magnetic fields in tokamaks and stellarators will be discussed, but also inertial fusion will be outlined. The current status of research and recent results are presented in detail. Finally, the plans for the ITER experiment under construction and various roadmaps to the fusion power plant are discussed.

Prof. Dr. Hartmut Zohm is a director at the Max Planck Institute for Plasma Physics, where he is responsible for the operation of the tokamak experiment "ASDEX Upgrade". Since 2020, he has also been leading a European working group dealing with the physics of a demonstration power plant.



**Tuesday, 25.04.2023, at 16:30 h, HS C (Technik)**

Innsbruck Physics Colloquium,  
Organisation: K. Erath-Dulitz, H.-C. Nägerl, T. Schrabback