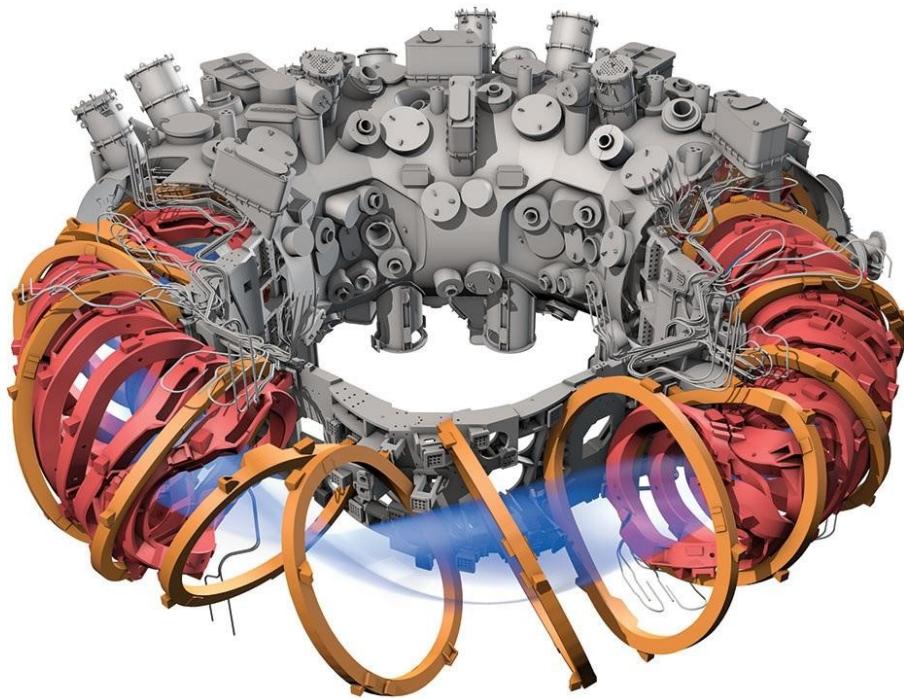




Of tokamaks and stellarators – why in nuclear fusion going simpler is not always better.

Tuesday, 05 March 2019, DESY Auditorium, 16:45 h

Josefine Proll (Eindhoven University of Technology)



*Adapted from
IPP by C. Bickel / SCIENCE*

When it comes to magnetic confinement fusion, most people know of the big experiment of the tokamak type, ITER, currently under construction in the south of France. While the axisymmetry so characteristic of the tokamak has many advantages, there is another, potentially even more promising candidate: the stellarator, tokamaks twisted sibling. In this colloquium, I will talk about why the ITER tokamak is so important for the fusion community, and why letting go of the axisymmetry – thus arriving at the stellarator concept – might solve some problems that have always plagued tokamaks. I will then show how this freedom in shape allows stellarators to be optimised - for optimally confining the plasma as has been done for the Wendelstein 7-X stellarator (shown in the figure), but also for reduced turbulence, which will be necessary for a future reactor.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the colloquium there is a chance for private discussions with the speaker over drinks and pretzels**