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Search for the neutron electric dipole moment at the Paul Scherrer Institute

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At the Paul Scherrer Institute, a collaboration of 15 institutions is conducting an experiment to search for a permanent neutron electric dipole moment.
The experiment uses ultracold neutrons (UCN) stored in vacuum at room temperature. This technique provided the last (and best) limit by the RAL/Sussex/ILL collaboration in 2006: 2.9 × 10-26 e cm (90% C.L.).
We aim at improving this limit using an upgrade of the same apparatus.

The data taking is finishing and an overview of the sensitivity will be given together with a status report on the control of the systematic effects.
In particular I will discuss some of the most recent developments and their impact on the sensitivity and conclude with the perspectives of this collaborative work.

Also the collaboration is preparing a next generation apparatus, named n2EDM. I will present the key aspects of its design.

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