The ultimate X-ray microscope PETRA IV - New opportunities for Nuclear Resonance Scattering

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The 3rd generation synchrotron source PETRA III at DESY in Hamburg is envisaged to be upgraded to the ultra-low emmittance storage ring PETRA IV up to 2027. The project is currently in the technical design phase.

The talk will cover an overview of the project and the expected machine and beam parameters and then focus on the new opportunities for Nuclear Resonant Scattering provided by the new machine.