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## VUV Applications at EuPRAXIA@SPARC\_LAB

*Thursday, 26 September 2024 18:00 (30 minutes)*

The scientific applications of ARIA, a VUV-seeded FEL beamline that will be part of the EuPRAXIA@SPARC\_LAB user facility, are presented here. ARIA will deliver ultra-bright, ultra-short photon pulses in the 50 to 180 nm energy range, with tunable linear and circular polarization. This makes it an ideal source for time-resolved studies in atomic, molecular, and cluster physics, as well as for the investigation of gas phase systems and liquids. Key experimental techniques will include resonant VUV measurements, photoelectron and ion spectroscopy, two-photon photo-emission and small- and wide-angle scattering. A schematic overview of the experimental endstation required to perform these classes of experiments will also be given.

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