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# SAMBA: The first Small-Angle Neutron Scattering Instrument for the ICONE Compact Source

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The ICONE project aims to develop a compact neutron source (HiCANS – High Current Accelerator-driven Neutron Source) to serve the needs of the French scientific community. Within this framework, the SAMBA instrument (Small Angle Measurements for Broad Applications) is being designed to provide versatile and efficient small-angle neutron scattering (SANS) capabilities, tailored to the characteristics of compact sources, including moderate flux and wide wavelength bandwidths.
SAMBA is optimized to maximize measurement efficiency across a broad range of scattering vectors (Q), using a modular collimation system. Monte Carlo simulations (McStas) have been employed to optimize the instrument geometry and predict its performance in terms of flux, resolution, and accessible Q-range.This presentation will outline the current design specifications and performance estimates for SAMBA. Beyond presenting the instrument, this session is intended as an opportunity to engage with the scientific community: feedback and discussions are highly encouraged to refine SAMBA's capabilities and better align the final design with the diverse needs of future users across soft matter, disordered materials, and nanostructured systems research.

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