

The Future in Feedback: prospects for the next generation of NASA X-ray Probes

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The recommendations from the most recent Decadal Survey on Astronomy and Astrophysics include a NASA-led probe-class X-ray telescope to be launched in the 2030s. I will discuss the mission concepts that are being developed as a response, with particular focus on SRON's contribution to the observatories that will address the priority area "Unveiling the Drivers of Galaxy Growth". Galaxy formation connects processes happening over a vast range of spatial scales, striking a fine balance between gas inflows from the cosmic web and gas outflows driven by supernovae and supermassive black hole feedback. Sensitive, high-spectral resolution X-ray observations are poised to reveal in fine detail the imprint of these processes onto the interstellar, circumgalactic, and intergalactic media, providing an important missing piece of the puzzle in our understanding of stellar and galactic ecosystems.

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