Royal Astronomical Society

Professor Debora Sijacki – Eddington Medal (A)

Professor Debora Sijacki has made outstanding contributions to our understanding of the role Active Galactic Nuclei (AGN) play in the evolution of galaxies, clusters of galaxies, and the Universe.

She pioneered the development of computational techniques and physical models to understand the complex interactions between AGN and their environments across cosmic time. Her advances were instrumental to the design of simulations capable of reproducing the beautiful variety of spiral, elliptical, and irregular galaxies that we see in the Universe.

Professor Sijacki seminal body of work has demonstrated the fundamental role of AGN feedback, and as a founding member of the renowned Illustris collaboration, she has shown that simulations are key to constraining both astrophysics and cosmology. This has grown into a major field of study that is central to our interpretation of observations. Owing to her contributions, modern computer simulations can now realistically model the Universe.

Professor Sijacki is currently developing an interdisciplinary approach to understand astrophysical black holes with the aim to discover new physics beyond our standard theories and to maximize the scientific return of next-generation multi-messenger observational programmes. Beyond her widely recognised scientific achievements, Professor Sijacki has also mentored, advised, and inspired numerous students, postdoctoral researchers, and colleagues.

For these reasons Professor Sijacki is awarded the RAS Eddington Medal.

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