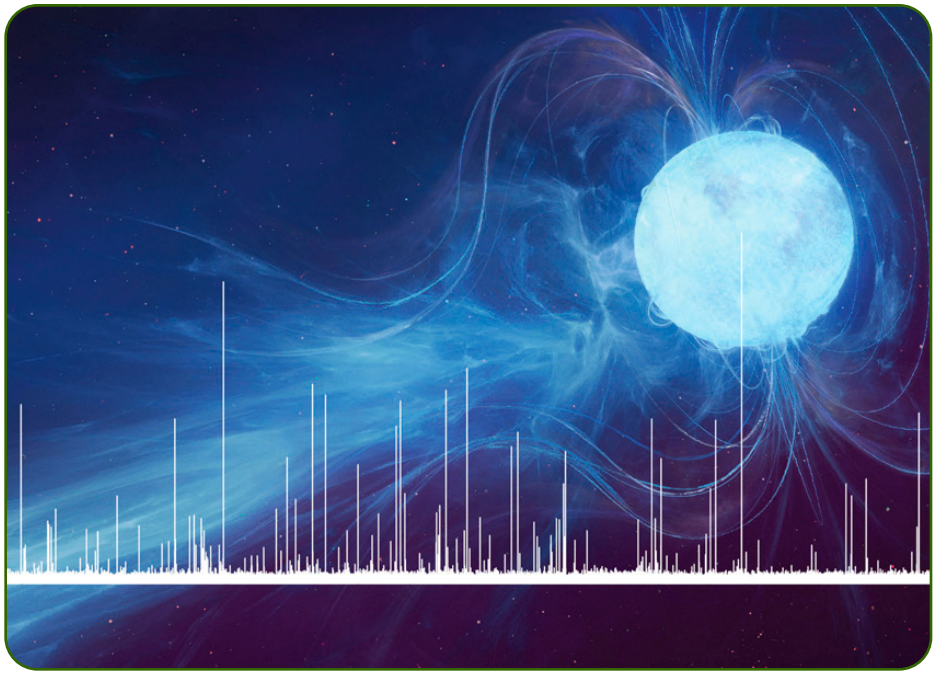
Nanda Rea

Nanda studied physics in Italy, and after many years in The Netherlands, she is now full professor at the Institute of Space Sciences (CSIC) in Barcelona, Spain.

Currently she is running a large research group funded by an ERC Consolidator Grant and an ERC Proof of concept grant, focused on studying the reach of the neutron star population in our Galaxy, and their relation with the most explosive Universe events. She works with many X-ray satellites, but keeping an eye also on theoretical modelling and population synthesis simulations.

Nanda is a member of the NewAthena Science Study Team and an ESA representative in the Einstein Probe team, where she chairs the "Compact Object" panel. She is also part of the Senior Science Committee of the ESO Expanding Horizon and member of a few SKA science working groups.

One of Nanda's interests is simulating how the X-IFU's high spectral resolution can improve constraints on neutron star equation of state and magnetic field geometry, and how the WFI large throughput can help in identifying Galactic X-ray transients as well as helping constraining the neutron star radii via pulse profile modelling.



Artistic image of a magnetized neutron star with superimposed the lightcurve of the bursting activity of the magnetar SGR 0501+4561 as observed by ESA XMM-Newton satellite (Rea et al. 2009, MNRAS).
Credit: Maciej Rebisz/QuantaMagazine; ESA/XMM-Newton/Rea et al.