

Proposal Acronym	AGN environs in XXL
Proposal Title:	Environmental studies of active galactic nuclei in the XXL multiwavelength survey
Surname:	Melnyk
First name(s):	Olga
Research area:	Physics PHY
Sub-discipline of research area:	Astronomy - Astrophysics and Cosmology
Category of research:	basic
Keywords:	active galactic nuclei (AGN), deep multiwavelength extragalactic surveys, evolution of galaxies and AGN, environment of galaxies and AGN
Abstract:	<p>The proposed research is based on the new data of the medium deep 50 sq. deg X-ray and multiwavelength XXL survey. XXL survey is the largest existing XMM-Newton programme, and provides a sample of about 20000 X-ray sources, the great majority being active galactic nuclei (AGN). XXL is fully covered with optical, near-infrared, infrared, ultraviolet and radio bands, and also have an extensive spectroscopic coverage. The main aim of this proposal is to study in details the interconnection between the AGN activity of radio-quiet and radio-loud AGN, the physical properties of the host galaxies (i.e. the stellar mass, SFRs, colour, morphology etc.) and the role of the environment in different redshift ranges in order to better understand the redshift evolution and the feedback mechanism. The obtained results will help us to better understand the relative importance of internal and external factors on galaxies' and AGN's evolution through the cosmic time and test the unified scheme of AGN.</p>
Does this proposal possess any of the sensitive ethical issues detailed in ethical issues table?:	No