

Proposal Acronym	MONOVERSE
Proposal Title:	Monoverse - an inhomogeneous model of the Universe
Surname:	Marunović
First name(s):	Anja
Research area:	Physics PHY
Sub-discipline of research area:	Universe Sciences Astronomy - Astrophysics and Cosmology
Category of research:	basic
[REDACTED]	[REDACTED]
Abstract:	<p>The Standard Cosmological Model – or the Lambda-CDM – has been highly successful in explaining astronomical observations, and yet recent observations have caused troubling clefs in the Model. In particular, large angular scale cosmic microwave background (CMB) temperature fluctuations and some large scale structure data suggest that the Lambda-CDM model is incomplete. At this moment there are no theoretical models that can successfully explain the data. In this proposal we will investigate cosmological models rectified by global monopoles and test them against the current data. There are strong indications that such models can explain many of the observed large angular scale CMB anomalies. An important ingredient of these models is that they provide a natural mechanism for violation of spatial homogeneity or isotropy and, moreover, they strengthen non-Gaussianities in the way suggested by the observations.</p>
Does this proposal possess any of the sensitive ethical issues detailed in ethical issues table?:	No