

# QSS25 - Marianna Safronova - Questions & Answers

*Marianna Safronova*

Most questions were addressed during the talk. Here are my answers to the two remaining questions.

**Wenchao Ge:** Based on current evidence, is dark matter distributed close to isotropic or anisotropic?

**Vishnu Unni. C:** The Halo of dark matter you mentioned, its range is limited to the vicinity of massive bodies like galaxies, or is it a continuum?

**MARIANNA:** Dark matter (DM) distribution is anisotropic on the large scales, with streams and clusters, which looks like a web at the Universe scale. Here is a simulation of the large-scale dark matter structures (normal matter galaxies and clusters are small yellow dots at that scale): <https://kipac.stanford.edu/education/media/dark-matter-streams>, click on mp4 link. At the galactic scale, DM would be denser near galactic center but there are no observations that are sufficiently precise to resolve local anisotropies even for our Galaxy, such new studies are being planned. It is generally assumed in direct detection experiments that it is isotropic in our locality.