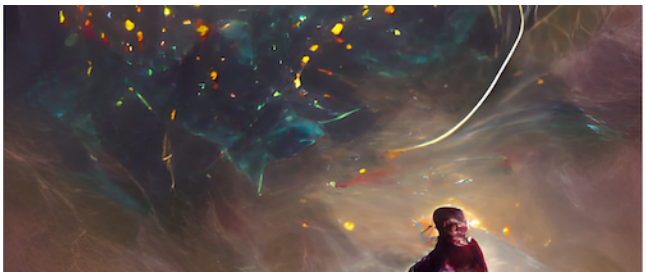

Contribution ID: **42** Type: **not specified**

Galaxies, clusters, and superclusters: connectivity, collapse, and evolution

Wednesday, 9 March 2022 17:15 (20 minutes)

I introduce our studies of the richest galaxy clusters in rich superclusters in the local Universe, in the Corona Borealis supercluster and in the A2142 supercluster, and galaxy transformations in them. The richest clusters in these superclusters are surrounded by the regions of influence with characteristic density contrast $\Delta\rho \approx 30$. The regions of influence passed turnaround and started to collapse at redshift approximately z = 0.4. The richest clusters in the Corona Borealis will merge in the future to form one of the most massive system in the local Universe. The main body of the SCl A2142 is now at turnaround. The connectivity of these superclusters (the number of long filaments connected to them) C = 6. Galaxies with very old stellar populations lie not only in the central parts of clusters and groups in superclusters, but also in the poorest groups in the low-density regions between superclusters (supercluster cocoons or voids).

Presenter: EINASTO, Maret (Tartu Observatory)

Session Classification: Day 3 Afternoon