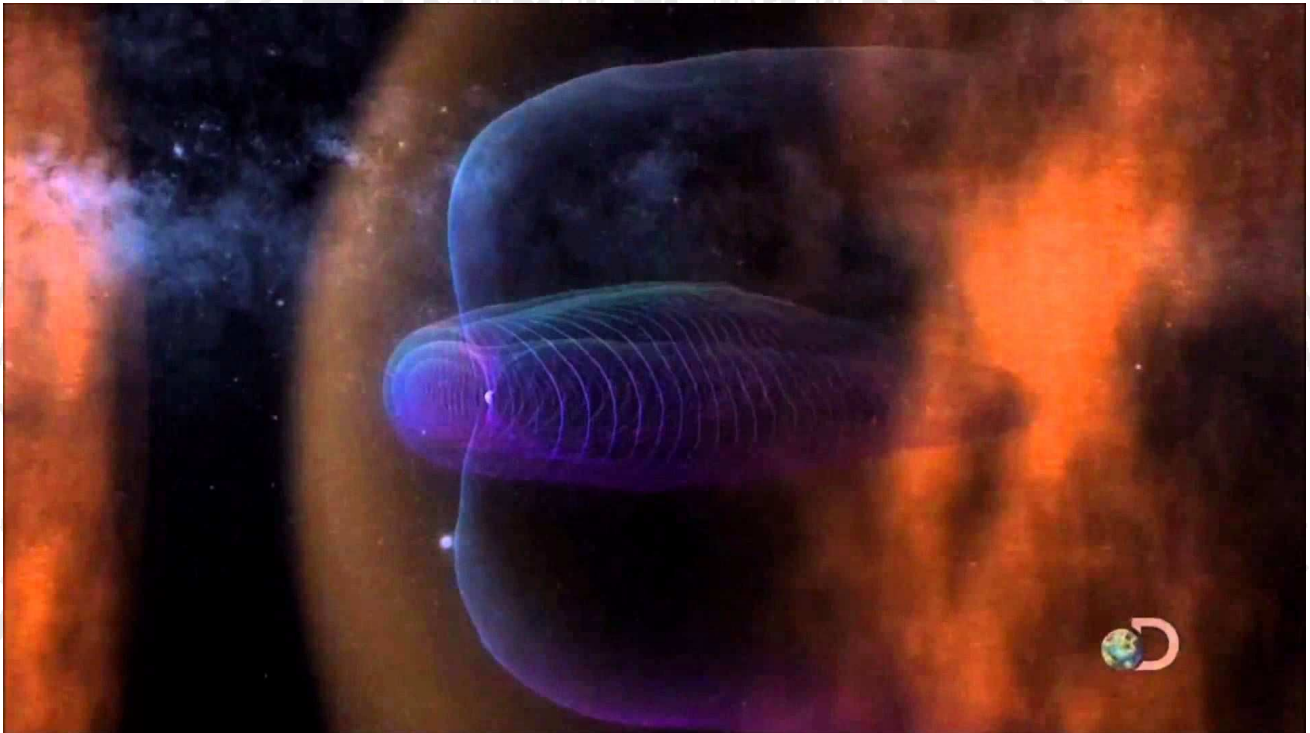


PHYSIKALISCHES KOLLOQUIUM

AM 27. JANUAR 2014 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



ORIGIN AND EVOLUTION OF COSMIC MAGNETIC FIELDS

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The luminous matter in the universe is in the state of a fully ionized gas - the plasma state. It is interspersed with magnetic fields on very different spatial scales. The intergalactic gas as well as the interstellar medium in galaxies exhibits nonthermal radiation which indicates the presence of magnetic fields of the order of a few micro-Gauss (or nano-Tesla), on scales of a few ten thousand to a few hundred thousand light years. We discuss the origin and evolution of such electromagnetic structures in the context of cosmological structure formation.