



# ***E I N L A D U N G***

**joint theoretical physics seminar**

zum Vortrag

von

**Paolo Salucci**

(SISSA, Trieste)

über

***„The mystery of the Dark Matter Phenomenon“***

**Abstract:**

The distribution of the non-luminous matter in galaxies of different luminosity and Hubble type is much more than a proof of the existence of dark particles governing the structures of the Universe. The deeper we go into the knowledge of the dark component that embeds the stellar component of galaxies, the more we realize the profound interconnection present between the two of them.

They are too complex to be arisen by two inert components that just share the same Gravitational field.

The 30 years old paradigm which rests on a-priori knowledge of the nature of dark matter that has led to the scenario of collisionless dark matter in galaxy halos reveals itself to be insufficient to explain the observations. Here, we will review the complex but well-ordered scenario of the properties of the dark halos in relation with those of the baryonic components they host.

We will present a number of tight and unexpected correlations between selected properties of the dark and the luminous matter that indicate that they interacted in a direct way over the Hubble Time.

**Zeit:** Donnerstag, 13.06.2019, **14.00**

**Ort:** Arbeitsgruppe Gravitation, Währinger Straße 17,  
Seminarraum A, 2. Stock

gez.: P. T. Chrusciel, S. Fredenhagen, A. Hoang