

# Colloquium

**SFB 956**

Conditions and Impact of Star Formation

**20 January 2020**

Monday 3:00 pm

**Physikalische Institute Köln**

Lecture Hall III

Zùlpicher Straße 77 | 50937 Köln

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## Tricks from Machine Vision Applied to the Study of the Magnetized Interstellar Medium

Machine vision is the set of tasks for gaining a high-level understanding of images sets, automating or enhancing the tasks that the human visual system can do.

In this talk, I will describe how we used basic techniques of machine vision for the analysis of the recent observations of the dust polarized emission with the Planck and BLASTPol instruments.

I will report how these techniques are providing crucial insight into how magnetohydrodynamic (MHD) turbulence is structuring the interstellar medium (ISM).

Finally, I will show how the extensions of these machine vision techniques can be used to look for the imprints of the molecular cloud formation and destruction in the extended HI and  $^{13}\text{CO}$  observations from the THOR and GRS surveys of the Galactic plane.