

# Colloquium

SFB 956

Conditions and Impact of Star Formation

**19 April 2021**

Monday 3:30 pm

**Physikalische Institute Köln**

**Video stream / Host: Karl Menten**

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## The Complex Chemistry of Young Stars

The environments in which young stars form show a rich and varied chemistry. Understanding how, when and where complex organic and potentially prebiotic molecules are formed in these regions is a fundamental goal of astrochemistry. With the Atacama Large Millimeter/submillimeter Array (ALMA) we are moving into a new territory for these studies with ALMA's high sensitivity for faint lines, high spectral resolution which limits line confusion, and high angular resolution making it possible to study the structure of young protostars on solar-system scales. In this talk I will present some of our recent ALMA results concerning the chemistry taking place in star forming regions. I will discuss the implications of these results on the formation of complex organic molecules around young protostars and the link between the birth environments of these protostars, the conditions in their protoplanetary disks and eventually the chemistry in emerging solar systems.

