Submillimeter Astronomy - astro842

Degree - M.Sc. in Astrophysics (PO von 2014)

Module	**Elective Advanced Lectures: Observational Astronomy**
Module No.	astro840

Course	**Submillimeter Astronomy**
Course No.	astro842

Category	**Type**	**Language**	**Teaching hours**	**CP**	**Semester**
Elective	Lecture with exercises	English	2+1	4	WT

Requirements for Participation:

Preparation: Basic astronomy knowledge

Form of Testing and Examination: Requirements for the examination (written or oral): successful work with the exercises

Length of Course: 1 semester

Aims of the Course: Students with B.Sc. in Physics will be introduced to astronomy in the submillimeter wavelength range, one of the last spectral regions to be explored with new high-altitude ground-based or airborne telescopes, and from space

Contents of the Course: The basic concepts of emission/excitation mechanisms from interstellar dust and molecules are discussed as well as the properties of the observed objects: the dense interstellar medium, star forming regions, circumstellar environments. Star formation near and far is a central focus of submillimeter astronomy and will thus be introduced in depth. Telescopes, instrumentation, and observational techniques will be described in the course

Recommended Literature: Contemporary review articles