

Module:	Elective Advanced Lectures: Modern Astrophysics
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Module No.: astro850

Course:	 Star Formation
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Course No.: astro857

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

Requirements for Participation:
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Preparation:

Form of Testing and Examination:

Written or oral examination

Length of Course:

1 semester

Aims of the Course:

An introduction to basic concepts, modern theories, and the current observational basis of star formation.

Contents of the Course:

The structure and evolution of the interstellar medium in relation to Star Formation: molecular excitation, interstellar chemistry; the star formation process: conditions, cloud collapse, protostellar evolution; low mass vs. massive star formation; related phenomena: jets and outflows, protostellar disks, shocks, photodissociation regions; the initial mass function, global star formation, starbursts, the star formation history of the Universe, the very first stars.

Recommended Literature:

Stahler, Palla: The Formation of Stars (Wiley-VCH, 2004)

Additional literature will be given during the course