Study programmes: Astronomy and Astrophysics - PhD studies

Course name: Solar Physics

Lecturers: Dušan Onić

Status: Optional

ECTS: 9

Attendance prerequisites: None

Course aims: Acquiring advanced knowledge about the Solar physics

Course outcome: At the end of the course, student has enough skills to start a research concerning the solar physics

Course content:

General characteristics of the Sun. Radius. Mass. Solar constant. Effective temperature. Interior of the Sun. Core. Radiative zone. Convective zone. Solar atmosphere. Solar atmosphere modeling. Photosphere. Chromosphere. Corona. Solar wind. Solar rotation. Oscillations. Magnetism. Solar activity. Sunspots. Faculae. Prominences and filaments. Flares. Coronal holes.

Literature:

1. Bray and Loughhead: The Solar Granulation, Int. Astrph. Ser. Vol. 8. (1967)
2. Bray and Loughhead: Sunspots, Int. Astrph. Ser. Vol. 7. (1964)
3. Gibson: Spokojnoe Solnce, Mir, Moskva, (1977)
4. Stix M.: The Sun, an Introduction. Springer Verlag, Berlin (1989)
5. Zirin: The Solar atmosphere, Blaisdell Pub. Comp., (1966)

Number of hours: 10	**Lecures: 4**	**Tutorials: 6**

Teaching and learning methods:

Ex cathedra, group work, student research

Assessment (maximal 100 points)

Course assignments	points	Final exam	points
Lectures		Written exam	
Exercises / Tutorials		Oral exam	60
Colloquia		Written-oral exam	
Essay / Project	40		