STELLAR EVOLUTION

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Reception hours: by appointment via email

Program of the course:

1. **Introduction**: general view of the research field, equations of stellar evolution and numerical techniques, regimes of the stellar evolution and transition masses (brief overview);

2. **Stellar evolution (and associated nucleosynthesis) as a function of the initial stellar mass**: low- and intermediate-mass stars (brief overview), so-called Super-AGB stars, massive stars (brief overview);

3. **Supernovae from Super-AGB and massive stars**: electron-capture supernovae, iron-core-collapse supernovae, post-explosive evolution of the ejected material and its radiation-hydrodynamical modelling;

4. **Selected current issues**: convective overshooting in stellar evolution, supernovae progenitors, peculiar explosive events, electromagnetic counterparts of gravitational wave sources.

Bibliography:


P.S. Other research papers will be suggested to cover specific topics