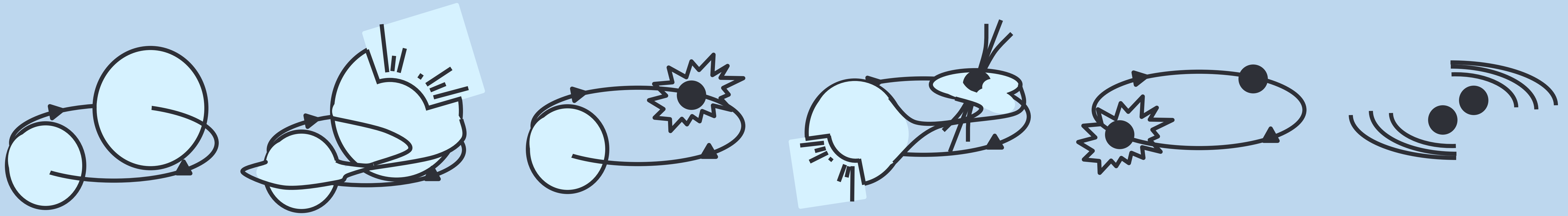
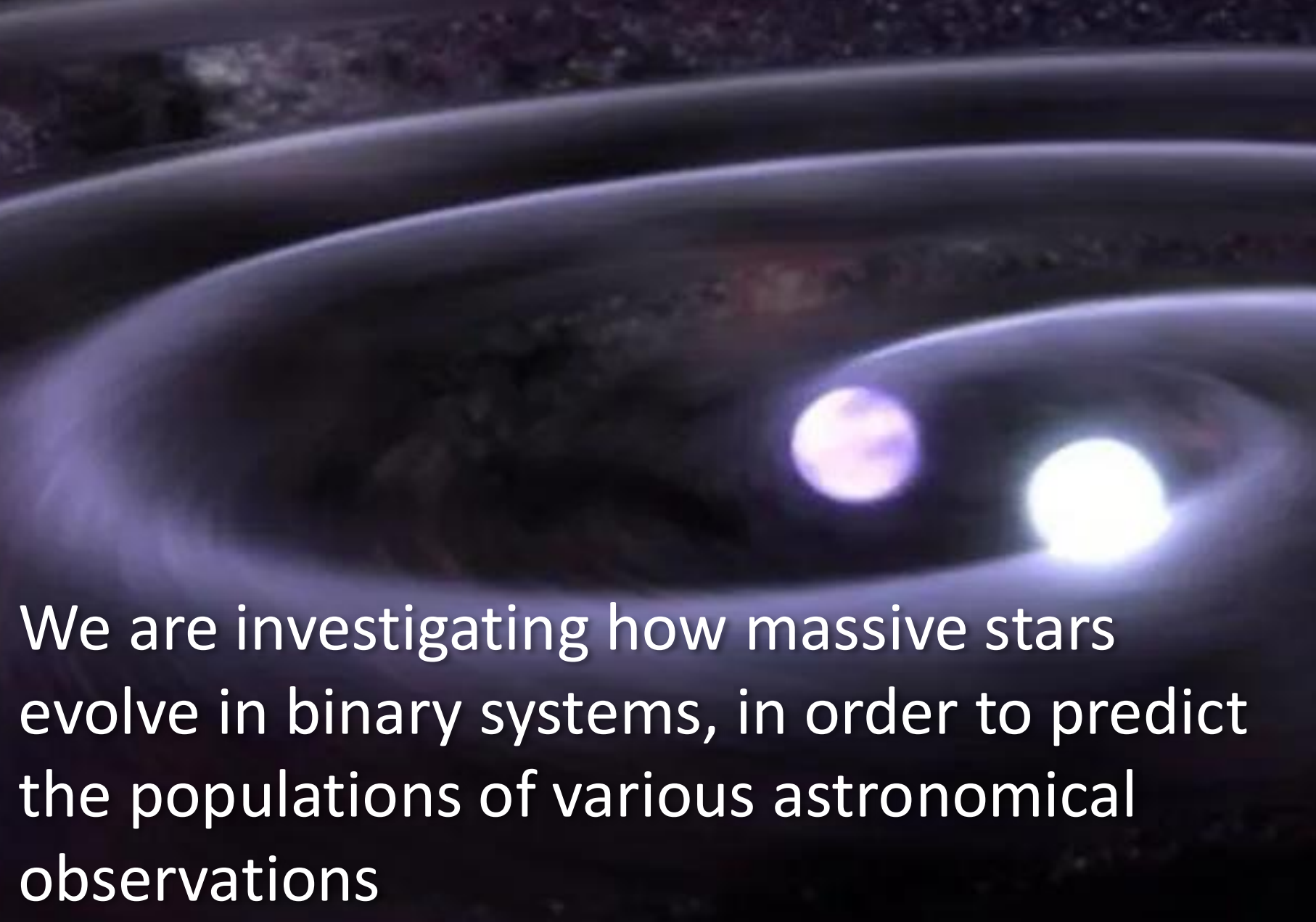


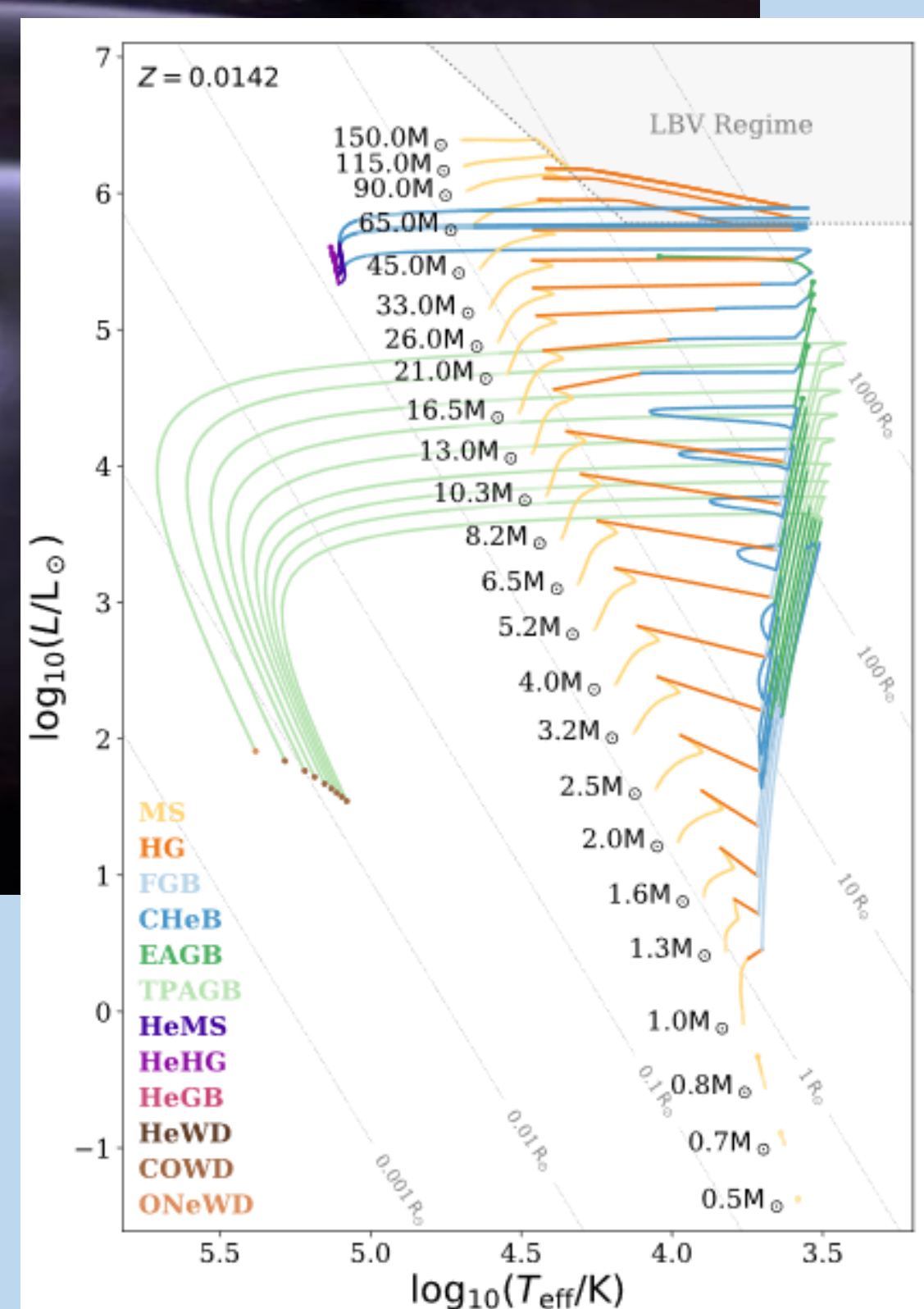
Constraining the physics of binary evolution through modeling and inference from birth 'til death!



Massive binary/stellar evolution

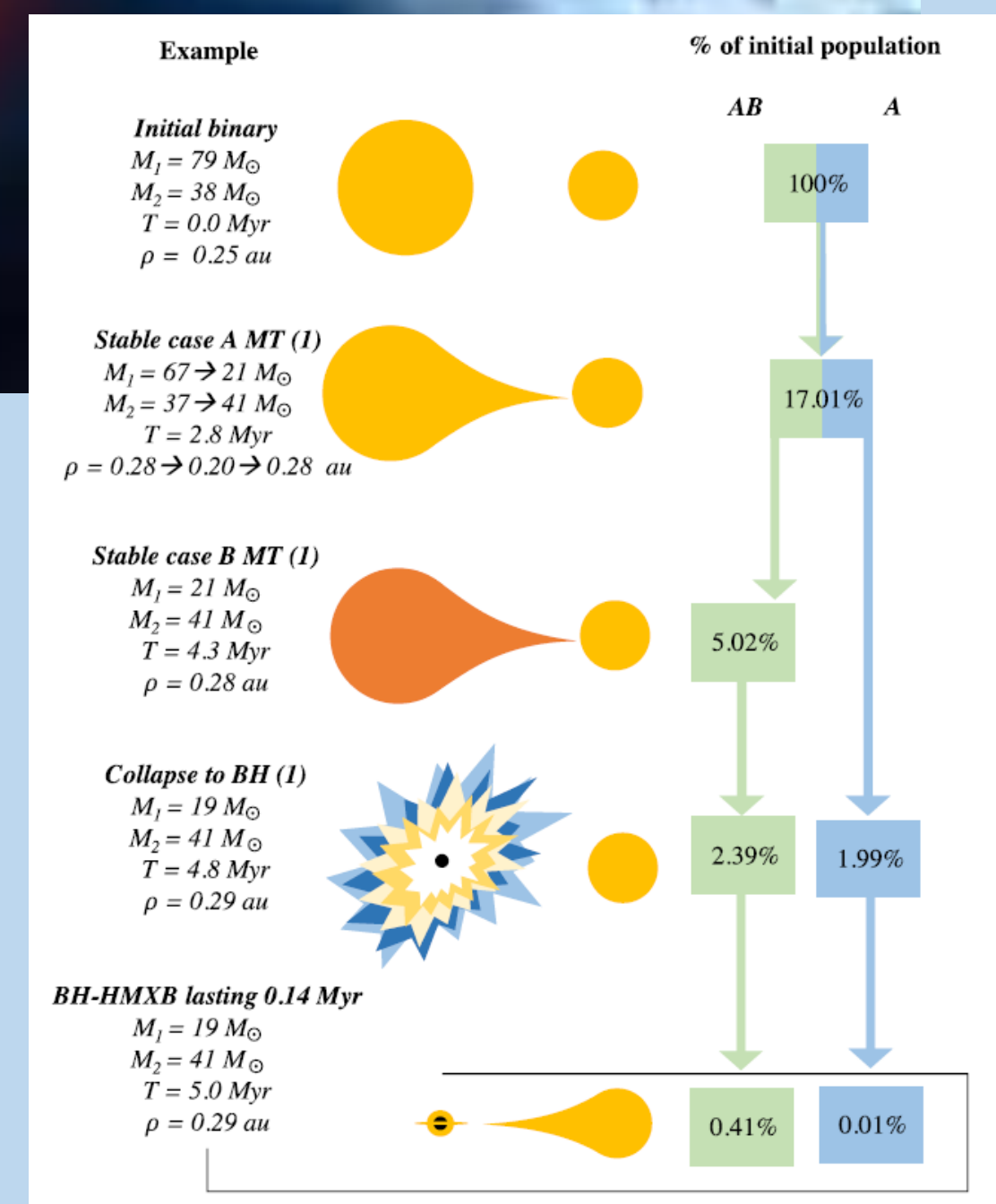
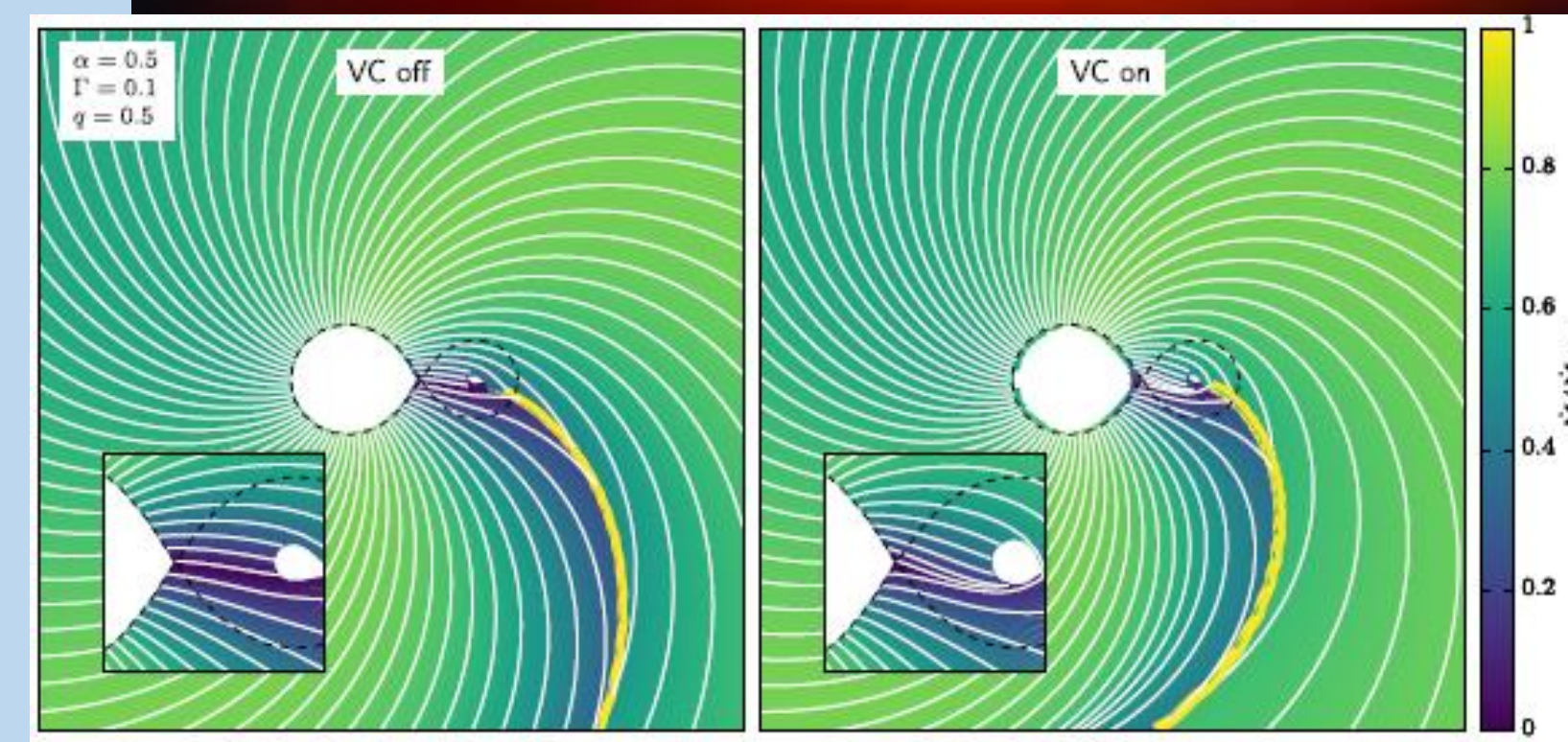
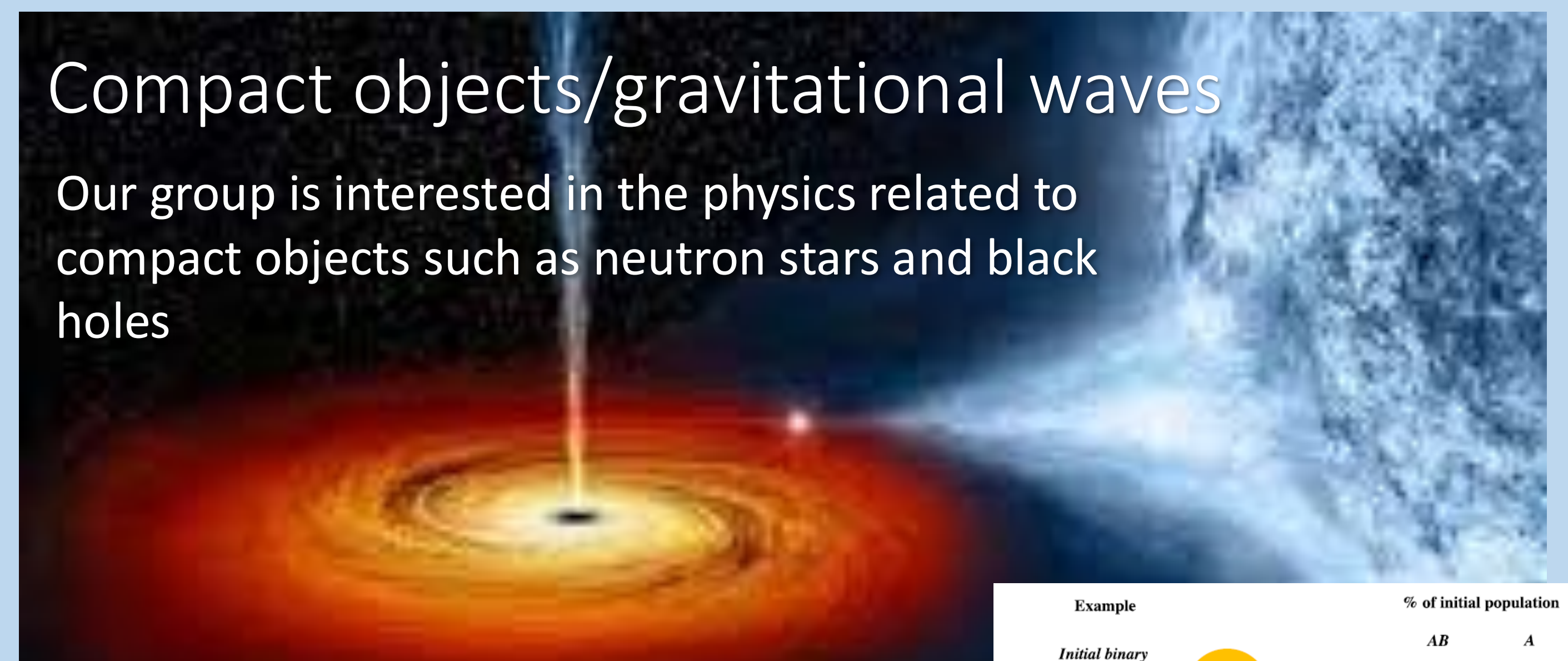


We are investigating how massive stars evolve in binary systems, in order to predict the populations of various astronomical observations

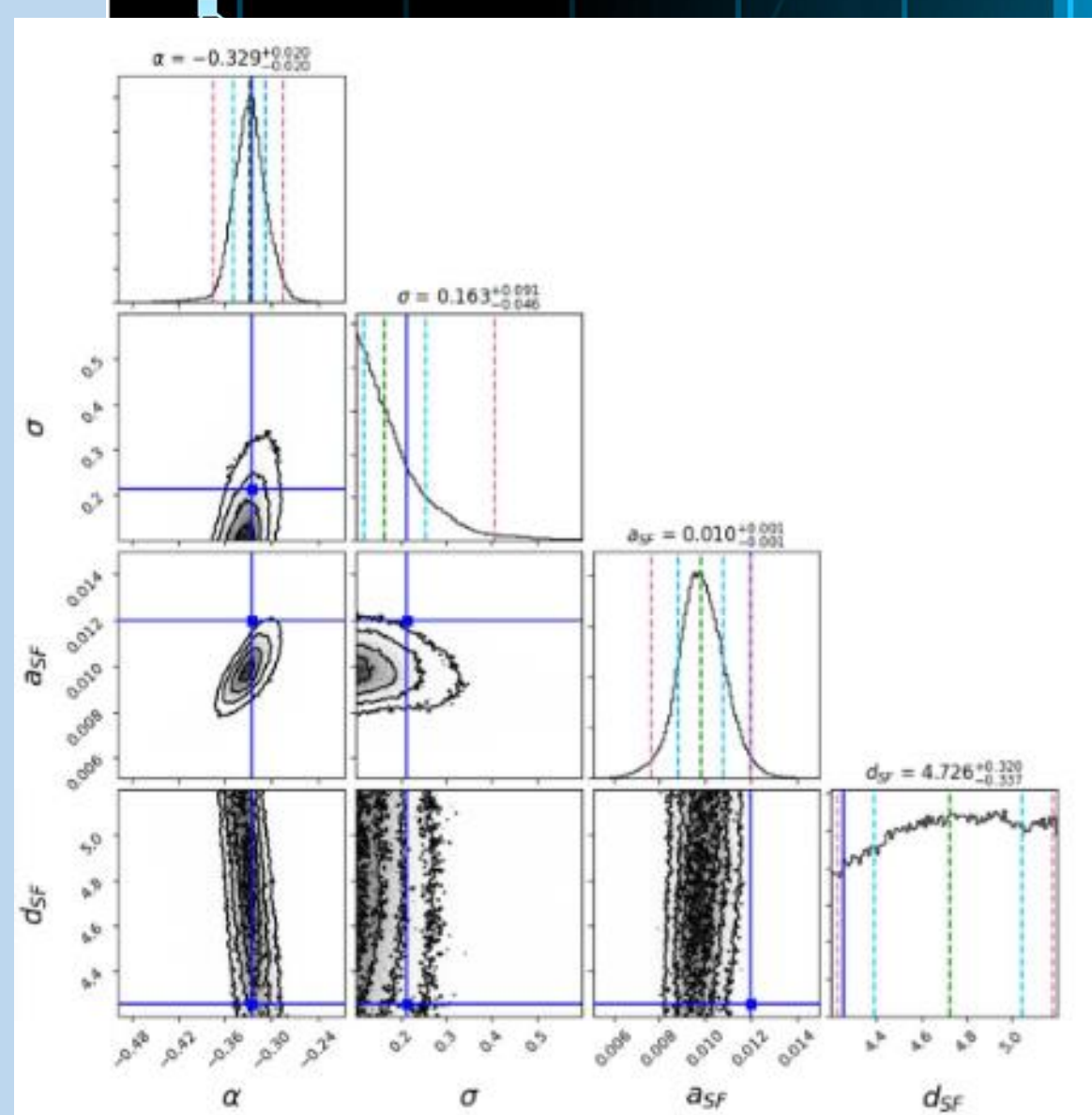


Compact objects/gravitational waves

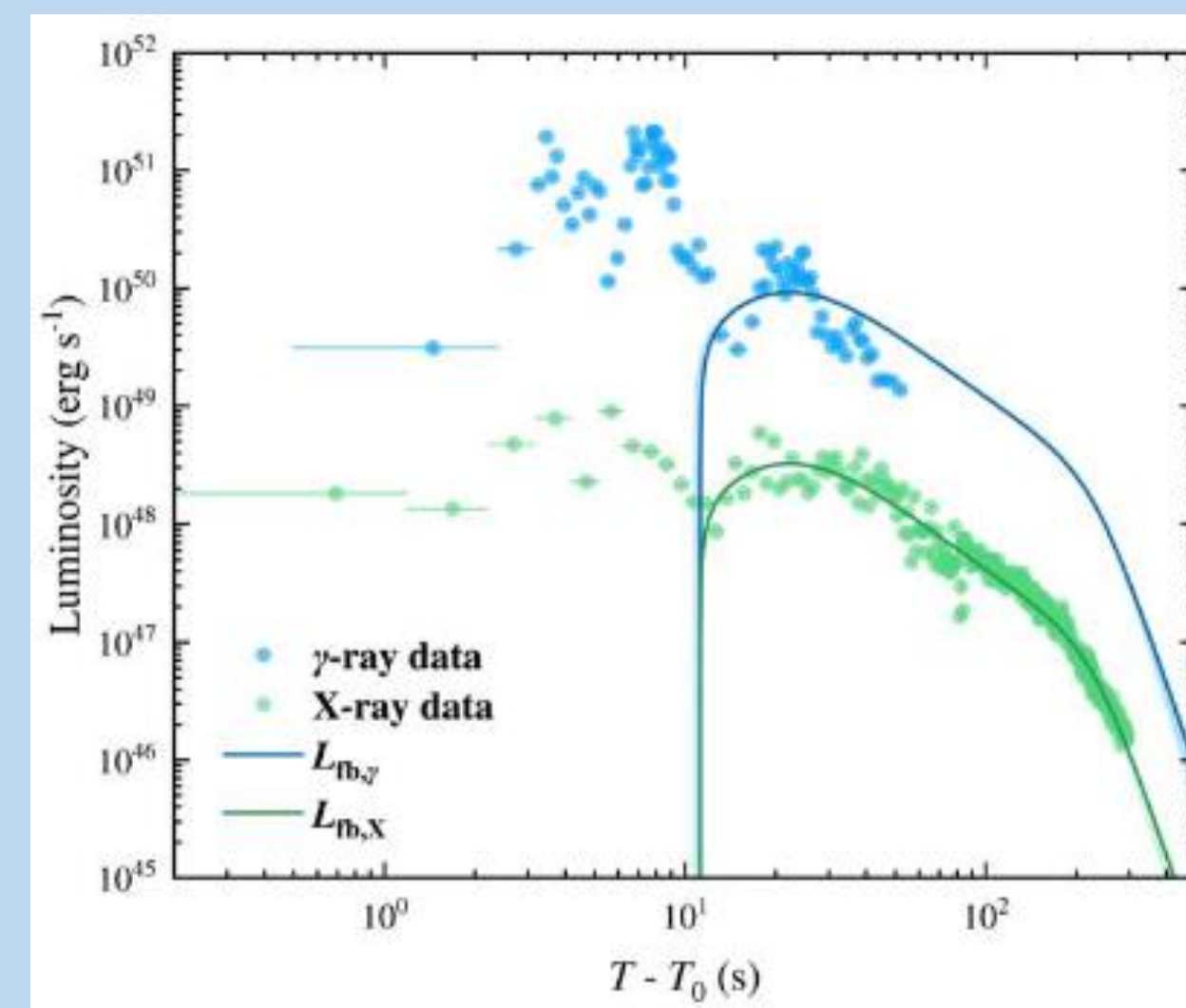
Our group is interested in the physics related to compact objects such as neutron stars and black holes



Astrostatistics



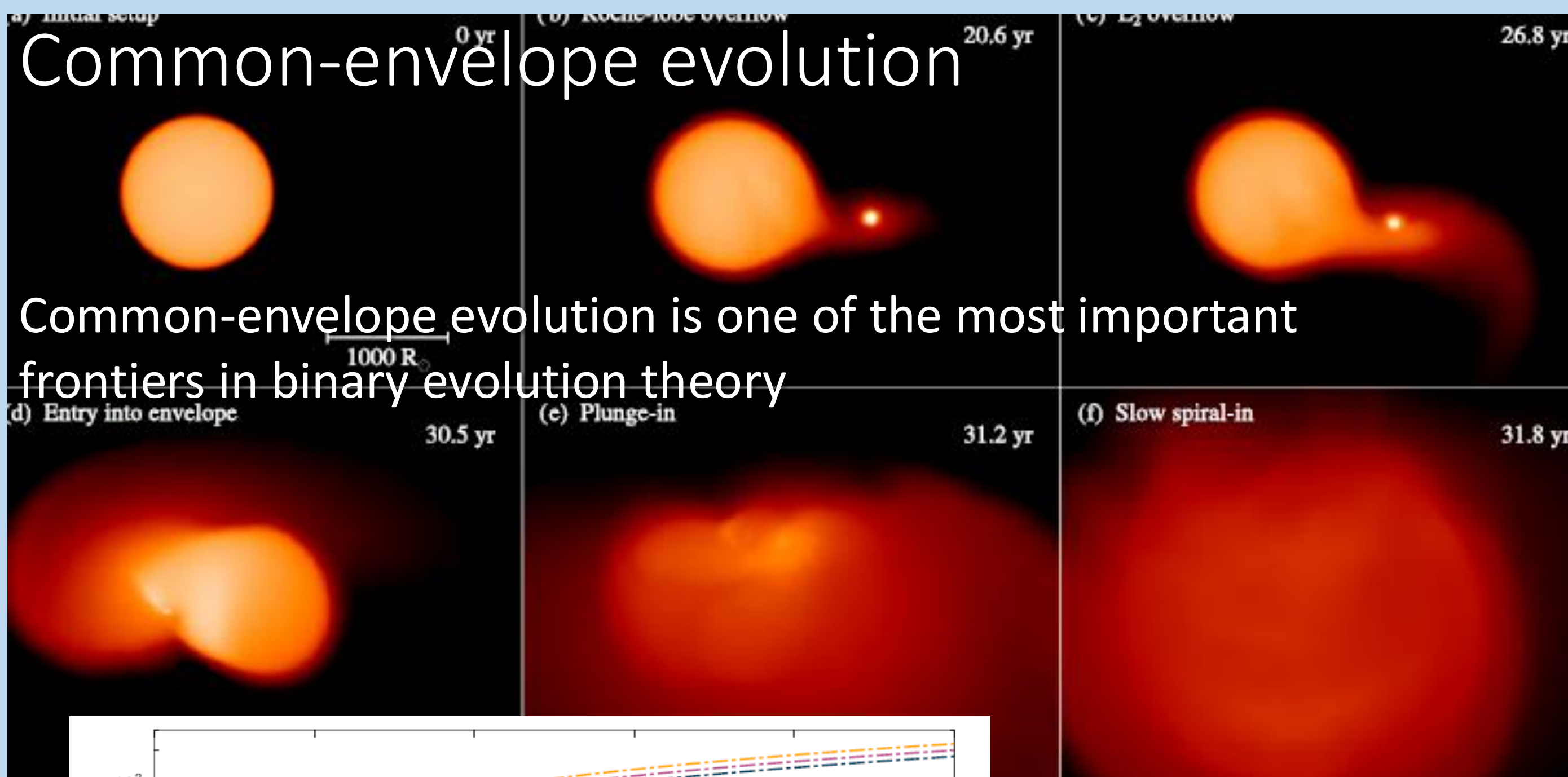
We develop new statistical methods to aid investigations in astrophysics



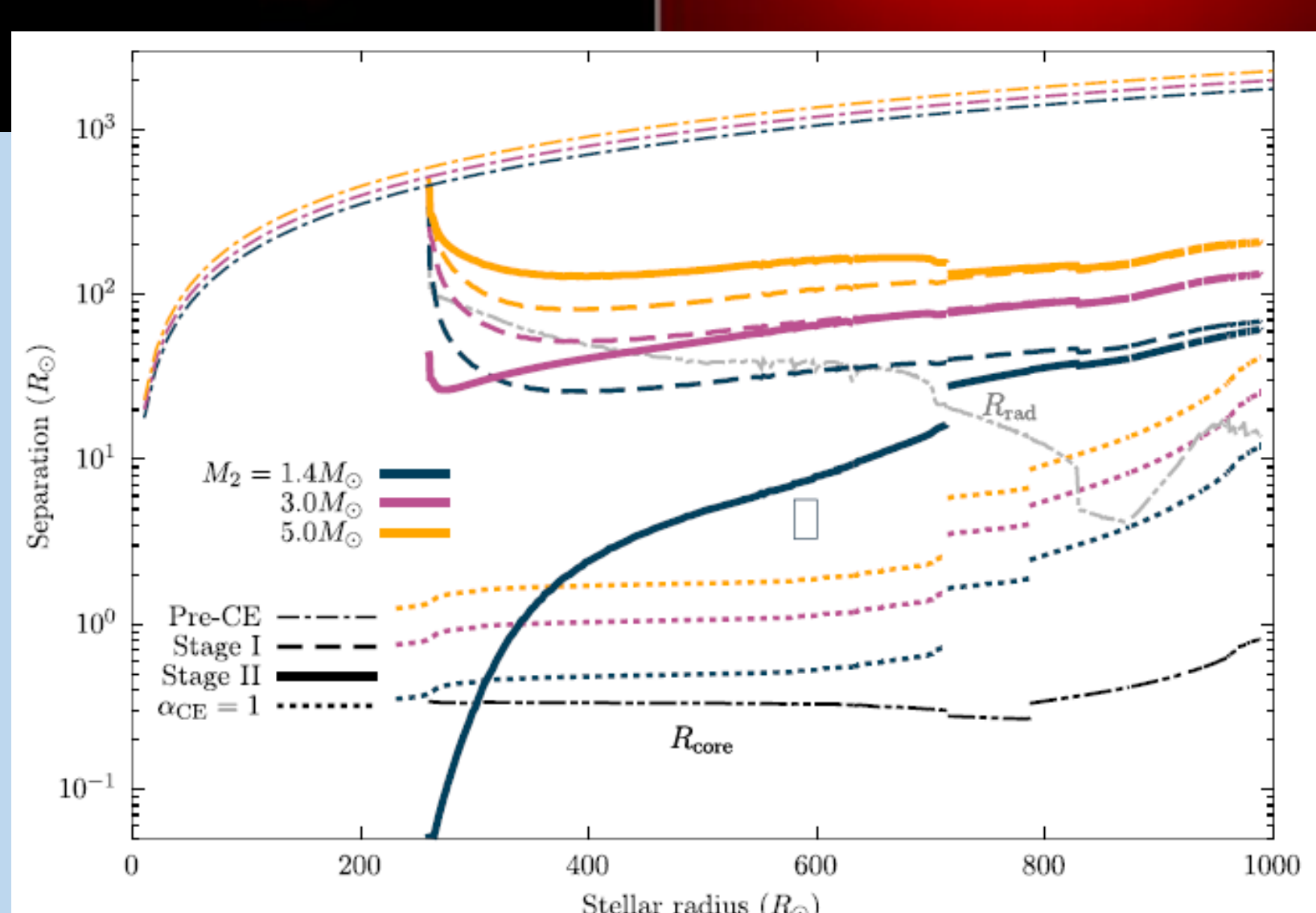
We are actively modelling the observational features of astronomical transients such as supernovae, gamma-ray bursts, kilonovae, stellar mergers, etc



Astronomical transients



Common-envelope evolution is one of the most important frontiers in binary evolution theory



Few-body Dynamics

We explore the stability of dynamical systems, which is important in many different environments

