Arend Bayer: **Stability and wall-crossing: applications to classical algebraic geometry**

This talk will be a survey of applications of Bridgeland stability conditions and wall-crossing on surfaces, in particular K3 surfaces. Most of these application concern questions of classical flavour, for example birational geometry of moduli spaces. I will then explain the mechanism of such applications by way of reproving well-known results, such as the Brill-Noether theorem for curves on K3 surfaces.