

Jeudi 20 octobre 2022 à 11h (IAS, bâtiment 121, salle 1-2-3)

The end of stars' lives: challenges, results, and perspectives at high angular resolution

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Cool evolved stars, namely asymptotic giant branch stars and red supergiant stars, experience an important mass loss (10^{-7} to 10^{-4} solar mass per year, while the solar wind represents $\sim 10^{-14}$ solar mass per year). This stellar wind is enriched in heavy elements and contributes to the chemical evolution of the Galaxy. For massive stars, it can determine the final fate of the star as a neutron star or black hole. Yet, some of its mechanisms are still unknown. The dust nucleation process is still unclear, for low and intermediate-mass stars the processes shaping planetary nebulae are not well constrained, for massive stars we still don't know how the material is lifted from the photosphere. I will present recent high angular resolution results on cool evolved stars using adaptive optics, and optical and sub-mm interferometry. I will conclude the presentation with an overview of a promising future thanks to powerful new instrumentation.

-----Zoom link-----

<https://cnrs.zoom.us/j/95836220504?pwd=R2RzZjFrNXovZi9EWkpCek5zZkpzQT09>

Meeting ID: 958 3622 0504

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