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Are the extremely red asymptotic giant branch stars hiding a close companion?

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Asymptotic giant branch stars are major sources for carbon dust in galaxies. The analysis of these objects in the Large Magellanic Clouds unearthed a group of stars, called “Extremely Red Objects” (EROs). The analysis of EROs spectral energy distribution suggests the presence of large quantities of dust in their surroundings, which demands gas densities in the outflow significantly higher than expected from theoretical modelling of single stars. In this talk I will discuss the possibility that EROs are part of interacting binary systems where the presence of a common envelope would favor a conspicuous dust formation.

Session

Dust and presolar grains

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