

Workshop

Stellar End Products: The Low Mass - High Mass Connection

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Title:

Super-AGB stars - bridging the divide between low/intermediate-mass and high-mass stars

Abstract:

Super-AGB stars are in the mass range ~ 6.5 -10 M_{sun} and are characterised by off-centre carbon ignition prior to a thermally pulsing AGB phase. Their fates are quite uncertain and depend primarily on the competition between the core growth and mass-loss rates. If the stellar envelope is removed prior to the core reaching the Chandrasekhar mass, an O-Ne white dwarf will remain, otherwise the star will undergo an electron-capture supernova leaving behind a neutron star. We describe the factors which influence these different fates, determine their relative fractions and provide mass boundaries.