

Workshop

Stellar End Products: The Low Mass - High Mass Connection

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Title:

Sub-millimeter maser emission from water fountain nebulae

Abstract:

Water fountain nebulae exhibit water maser spots tracing collimated outflows that expand at high velocities. It is thought that these outflows create cavities within the circumstellar envelope of the AGB star. This represents the origin of the aspherical structures that are seen in the later state of PN. So far, they have been studied through the maser emission at 22 GHz. Recently, we have detected for the first time water masers at 321 GHz. This discovery opens a new window to understand the origin of the fast collimated winds and their interaction with the circumstellar envelope of AGB stars.