Jets and other signs of accretion in planetary nebulae

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Abstract

The origin of the wide variety of shapes displayed by planetary nebulae (PNe) is perhaps the most debated topic in the field during more the last three decades. Today, the commonly accepted paradigm is that interactions in binary systems are the cause of at least the most collimated morphologies. Recent observations indicate that indeed a significant fraction of PN central stars are binaries, and the presence of specific morphological features, such as rings and jets, are confirmed to be unambiguous indicators of binarity. I will present illustrative cases of PNe where accretion is supposed to play an important role in their formation, shaping and evolution. This includes the formation of (precessing) jets and polar outflows, or the evidence for inflated or chemically polluted companions. The link with symbiotic stars is also discussed.