

SUCCESSIVE COMMON ENVELOPE EVENTS FROM MULTIPLE PLANETS

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Many stars harbour multi-planet systems. When one of these stars expands late in its evolution, the innermost planet may be engulfed, leading to a common envelope (CE) event. Even if this is insufficient to eject the envelope, it may expand the star further, causing additional CE events, with the last one unbinding what remains of the envelope. This multi-planet CE scenario may have broad implications for stellar and planetary evolution across a range of systems. In this talk I will discuss a simplified version of this scenario which shows that it may be able to explain the recently observed planet WD 1856+534 b.