



Wide-Separation Planetary Mass Companion Ross 458C

Ross 458C is **planetary mass companion** separated by 1100 AU from host binary Ross 458AB. Accurate metallicities constrain **formation history**.

- **IRTF/SpEx-SXD** archival spectrum provides accurate parameters **host binary**
- **JWST/NIRSpec** spectrum provides accurate parameters of **planetary mass companion**
- Metallicities host and planetary companion are similar:
 - Companion formed by **turbulent fragmentation of cloud**
 - Companion likely not formed in protoplanetary disk and then migrated outward

