

1 Description

- Title: The effects of binary stars on recovered remnant populations.
- Hypothesis/Research Question: So I think the goal is basically to see what the effects of realistic binary populations are on LIMEPY models and by extension, see what the effects on the recovered remnant population are.
- Goals and Objectives: Create realistic binary populations, make some toy models to demonstrate the effects, fit models with realistic binary populations to observations, compare remnant populations.

2 Motivation and Rationale

Right now, our models don't account for binaries at all, some studies suggest that binaries could mimic the effect of heavy remnants.

3 Methodology

- Approach to problem
- Techniques/Methods

4 Timeline

- Basic reading and planning
- Get the realistic binary populations working
 - Currently have it working with binaries defined by mass fraction
 - Use the binary fraction that is usually used so that we can compare to observations
 - Look into using isochrones to get the apparent color/magnitude of binary stars so we can fit with MF data (this may or may not be needed depending on how the MF data is reported, read the Sollima papers)
- Toy models
- Fit models
- Analysis/Writing
- End date