Rate  $[\mathrm{Gpc}^{-3}\,\mathrm{yr}^{-1}]$  $10^{-2}$  $10^{-3}$  $10^1$  $10^3$  $10^{-1}$  $10^0$  $10^2$  $10^4$  $10^5$ Gravitational waves GWTC-2: redshift independent model, Abbott et al. (2020f) GWTC-2: redshift dependent model, Abbott et al. (2020f) GWTC-2: 'truncated' model, Abbott et al. (2020f) GWTC-2: with GW190814, Abbott et al. (2020f) Isolated binary evolution O'Shaughnessy et al. (2010) Mennekens and van Beveren (2014) de Mink and Belczynski (2015) 💠 Dominik et al. (2015) Lamberts et al. (2016) Mapelli et al. (2017) Chruslinska et al. (2018) Giacobbo and Mapelli (2018) Klencki et al. (2018) Kruckow et al. (2018) Mapelli and Giacobbo (2018) Artale et al. (2019) Baibhay et al. (2019) Chruslinska et al. (2019) Eldridge et al. (2019) Neijssel et al. (2019) Spera et al. (2019) Belczynski et al. (2020) Giacobbo and Mapelli (2020) Mapelli et al. (2020) Rilev et al. (2020) Roman-Garza et al. (2020) Santoliquido et al. (2020) Tang et al. (2020) Bavera et al. (2021) Ghodla et al. (2021) • Olejak et al. (2021) Santoliquido et al. (2021) Chemically homogeneous evolution Mandel and De Mink (2016) Marchant et al. (2016) Riley et al. (2020) du Buisson et al. (2020) Population III stars Kinugawa et al. (2014) Belczynski et al. (2017) Hijikawa et al. (2021) Kinugawa et al. (2021) Tanikawa et al. (2021) • **Triples** Silsbee and Tremaine (2017) Antonini et al. (2017) Rodriguez and Antonini (2018) Martinez et al. (2020) Globular clusters Bae et al. (2014)Rodriguez et al. (2015) Antonini and Rasio (2016) Rodriguez et al. (2016) Askar et´al. (2017) Fujii et ál. (2017) Park et al. (2017) Fragione and Kocsis (2018) Hong et al. (2018) Rodriguez and Loeb (2018) Choksi et al. (2019)Antonini and Gieles (2020) Kremer et al. (2020) Mapelli et al. (2020) Nuclear star clusters Miller and Lauburg (2009)  $\rightarrow \bullet$  Antonini and Perets (2012) Antonini and Rasio (2016) Bartos et al. (2017) Petrovich and Antonini et a. (2017) Stone et al. (2017) Hamers et al. (2018) Hoang et al. (2018) ♠ ♠ ♠ Rasskazov and Kocsis (2019) Stephan et al. (2019) Mapelli et al. (2020) ▶ Tagawa et al. (2020) Wang et al. (2020) Yang et al. (2020) Young/Open stellar clusters Ziosi et al. (2014) Mapelli et al. (2016) Rastello et al. (2019) Di Carlo et al. (2020) Kumamoto et al. (2020) ▮ Mapelli et al. (2020) Santoliquido et al. (2020) Banerjee (2021) **Primordial ★**Bird et al. (2016) Ali-Haimoud et al. (2018) Raidal et al. (2019)  $10^3$  $10^{-3}$  $10^{-1}$  $10^0$  $10^2$  $10^{-2}$  $10^4$  $10^5$ Rate  $[\mathrm{Gpc}^{-3}\,\mathrm{yr}^{-1}]$