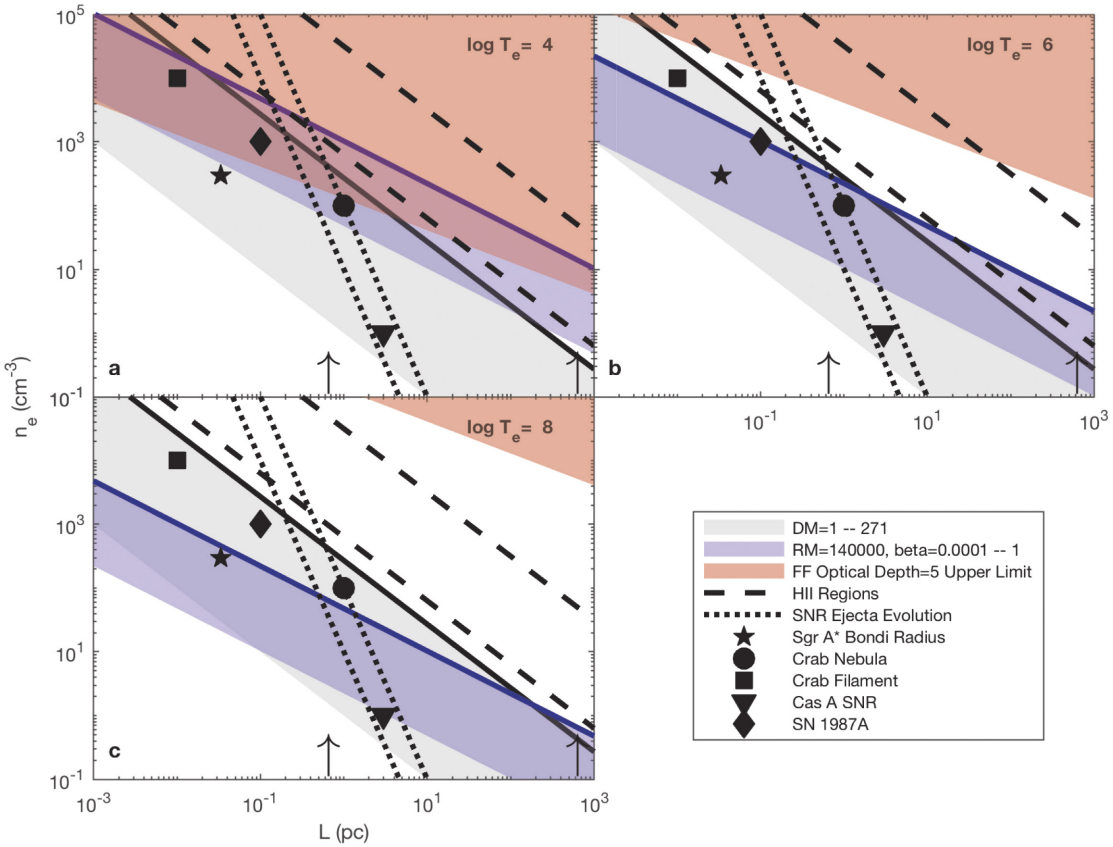

Extended Data Figure 6 | Physical constraints from source parameters. **a**–**c**, Parameter space for the electron density (n_e) and length scale (L_{RM}) of the Faraday region for three different temperature regimes, $T_e = 10^4$ K (**a**), 10^6 K (**b**) and 10^8 K (**c**). The shaded red region indicates the parameter space excluded because of optical depth considerations (optical depth from free–free absorption $\tau_{ff} > 5$). The solid black line indicates the maximum DM_{host} permitted, while the shaded grey region shows the dispersion measure down to 1 pc cm^{-3}. The solid blue line denotes RM_{src}. The shaded blue region shows the range $10^{-4} \leq \beta \leq 1$. The intersection of grey and blue regions outside of the red region is physically permitted. The arrows indicate the upper limits on the sizes of the persistent source (left) and the star-forming region (right), respectively[8,10]. The parallel dashed lines represent fits to a range of Galactic and extragalactic H II regions[21]. The parallel dotted lines represent the evolution of $1M_\odot$ and $10M_\odot$ of ejecta in up to 1,000 years at a velocity of 10^4 km s^{-1} in the blast-wave phase following a supernova[53]. The filled downward-pointing triangles and diamonds correspond to the supernova remnants Cas A and SN 1987A, respectively[54,55]. The filled circles represent the mean density and diameter of the Crab Nebula, whereas the filled squares represent the characteristic density and length scale of a dense filament in the Crab Nebula[24]. The stars indicate the density of Sagittarius A* at the Bondi radius[22].