



Figure 2.12: Degree distribution of the *moderate*₁ HCW contact network and max likelihood power-law (dashed line) and log-normal (light curve) fits. (a) log-log plot; each point $(d, p(d))$ represents the fraction $p(d)$ of healthcare workers with degree d in the moderate HCW contact network. (b) cumulative form; each point $(d, c(d))$ represents the fraction $c(d)$ of healthcare workers with degree at most d is shown here.

shows the fits visually for the *moderate*₁ graph and both fits seem reasonable, especially when viewing the cumulative density function (cdf) plot (Figure 2.12(b)), with the log-normal seeming to be a better fit. The plots for the sparse and dense case are similar. For both power-law and log-normal fits, we select the optimal parameter values for the distributions using a version of the maximum likelihood estimation method suggested by Clauset et al. [28]. Notwithstanding the plots, the p -values from a Kolmogorov-Smirnov test (following the approach of Clauset et al. [28]) indicate that while neither power-law nor log-normal are particularly good fits for any of the degree distributions, the log-normal distribution seems to be a marginally better fit than power-law, at least for the *sparse*₁ and *moderate*₁ graphs.