1145-90-2475 Jeffrey A Braun* (jbraun8@jhu.edu), 3404 Oakenshaw Pl, Baltimore, MD 21218, and John C Wierman. Progress on the Symmetric Rendezvous Problem on the Line. Preliminary report.

A famous open problem in the field of Rendezvous Search is to ascertain the rendezvous value of the symmetric rendezvous problem on the line wherein both agents begin 2 units apart. We provide a new, Bayesian framework to both create new strategies for the agents to follow and to provide a new interpretation of previously posited strategies. Additionally, we have developed a method that modifies any strategy, even those with potentially infinite expected meeting time, into a new strategy that is guaranteed to have a finite expected meeting time. This process, combined with using our Bayesian framework to create new strategies, yields an upper bound that is within 1% of the current best upper bound for the symmetric rendezvous value. (Received September 25, 2018)