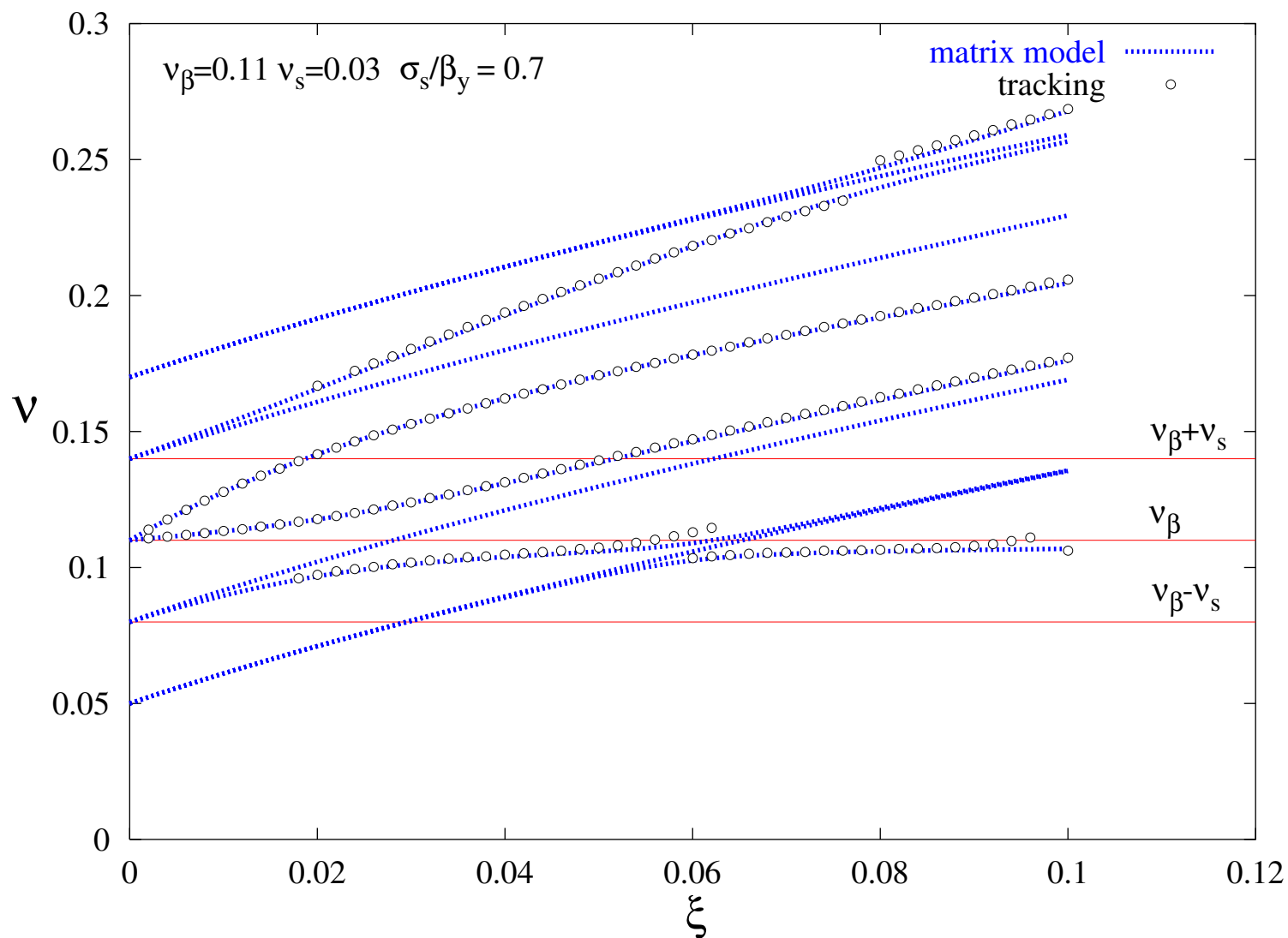




Coherent synchro-betatron mode tunes vs. the beam-beam parameter ξ .
 Comparison of matrix calculation and tracking with Gaussian distribution
 in the synchrotron phase space.