

Fig. 1. Simulation results for the vertical and horizontal beam blowup factors in "Approach A" for both designs. In this approach the nominal beam-beam parameters are varied such that $\xi_{0x+} = \xi_{0y+} \equiv \xi_{0+}$ and $\xi_{0x-} = \xi_{0y-} \equiv \xi_{0-}$ with $\xi_{0+} \cdot \xi_{0-} = 0.03^2$ at fixed nominal luminosity, $L_0 = 3 \times 10^{33} \text{ cm}^{-2} \text{ s}^{-1}$.

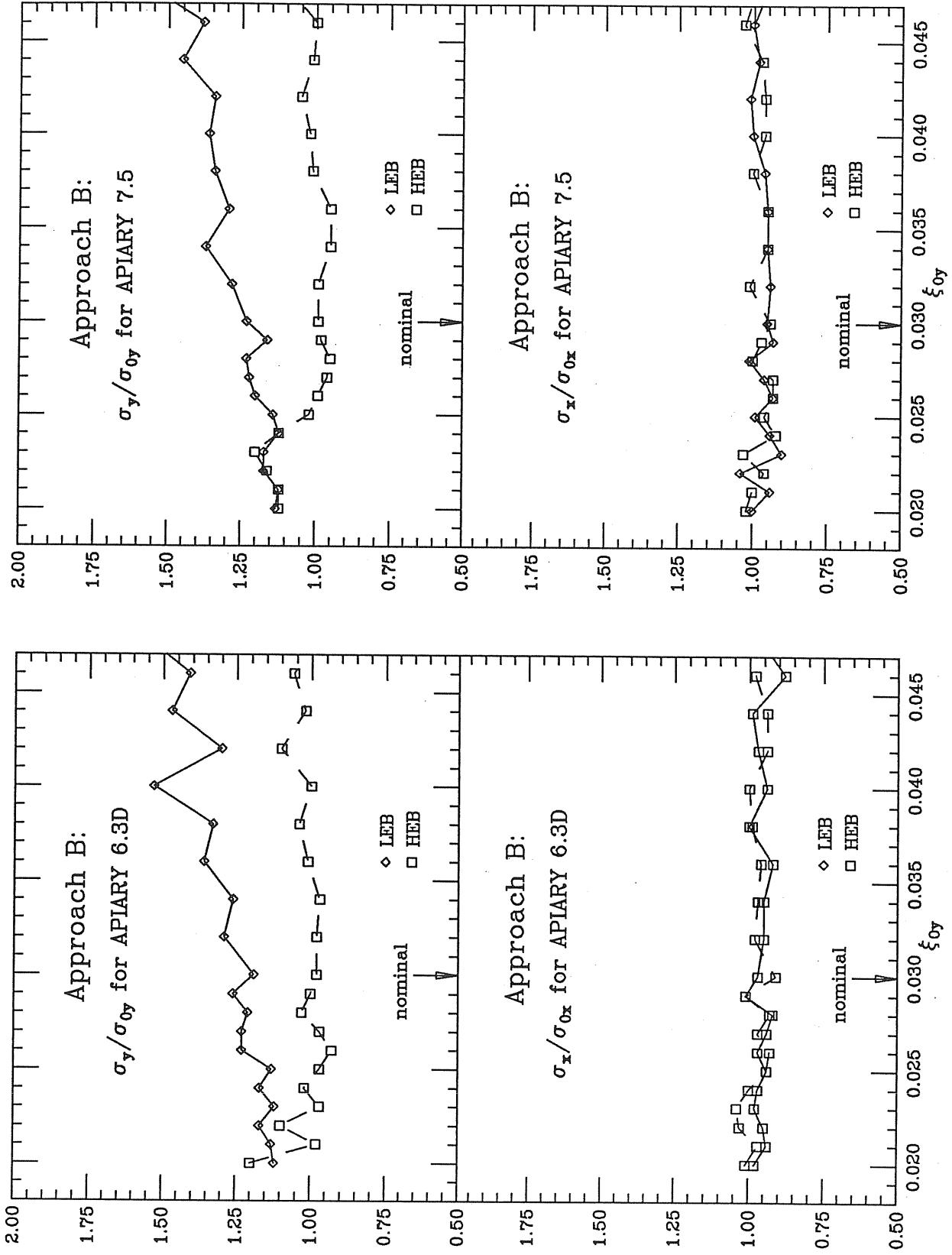


Fig. 2. Simulation results for the vertical and horizontal beam blowup factors in "Approach B" for both designs. In this approach the nominal beam-beam parameters are varied such that $\xi_{0x+}=\xi_{0y+}=\xi_{0x-}=\xi_{0y-}$ and $\xi_{0y+}=\xi_{0y-}=\xi_{0y}$ with $\xi_{0x}\cdot\xi_{0y}=0.03^2$ at fixed nominal luminosity, $L_0=3\times 10^{33} \text{ cm}^{-2} \text{ s}^{-1}$.

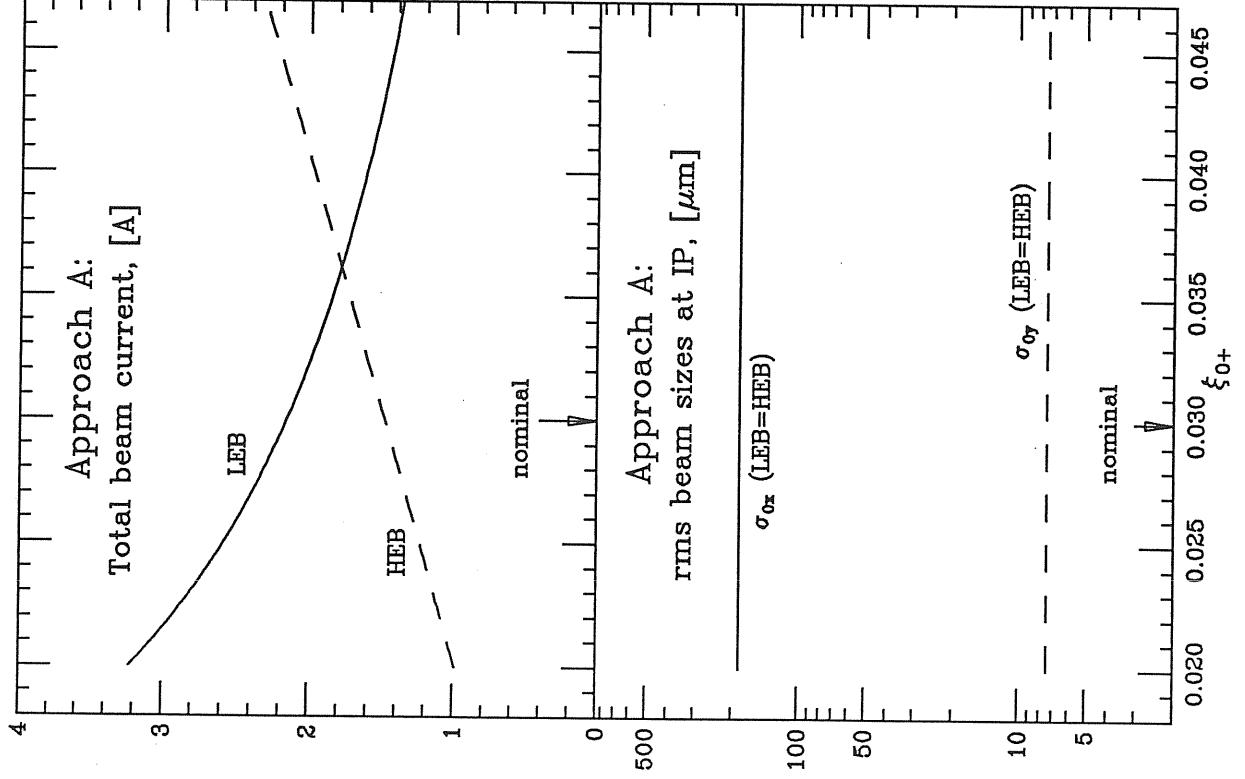


Fig. 3. Total beam current and nominal rms beam sizes at the IP in both approaches. For these particular quantities, the results are the same for APIARY 6.3D and APIARY 7.5.

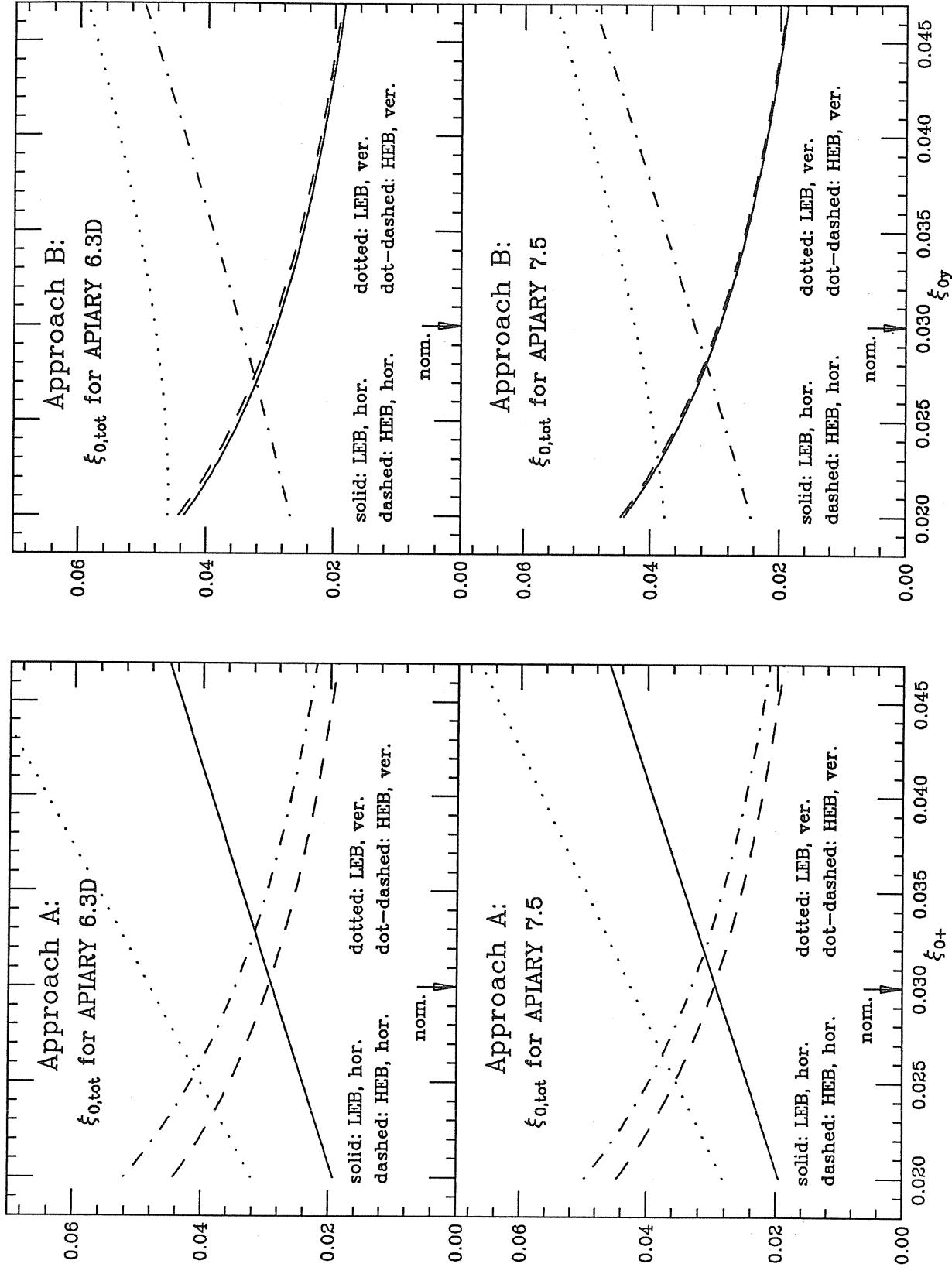


Fig. 4. Total nominal beam-beam parameters, defined as $\xi_{0,tot} \equiv \xi_0 + 2\xi_{0,pc}$, for each design in the two approaches.