

Abstract Submitted
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Vortices for Ps formation in positron-hydrogen collisions S. J. WARD, University of North Texas, P. VAN REETH, University College London, ALBANDARI W. ALROWAILY¹, University of North Texas — We have found two deep minima in the differential cross section for Ps formation in positron-hydrogen collisions in the Ore Gap. Each minimum has been shown to correspond to a vortex in the velocity field associated with the scattering amplitude. The velocity field rotates about the position where the real and imaginary parts of the scattering amplitude are zero. For the first zero, we have verified that the magnitude of the circulation [1] is $2\pi/M$, where M is the mass of the outgoing Ps. [1.] Iwo Bialynicki-Birula, Zofia Bialynicka-Birula, and Cezary Śliwa, Phys. Rev. A **61**, 032110 (2000).

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