

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Evolution of the angular dependence of the Bloch wavefunction of the topmost VB states in biaxially prestressed bulk GaAs under variable uniaxial tension. The initial “donut” is characteristic of a conventional heavy-hole state and is invariant for rotations about the z-axis. Under uniaxial tension, the shape resembles a slightly squeezed “donut” with symmetry axis along the pulling direction. Further information is provided in the Supplementary Note 10.