

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Microwave absorption by electrons on helium in a tilted magnetic field SOLOMON DUKI, H. MATHUR, Case Western Reserve University — Microwaves can be used to drive transitions between the ground and low-lying excited states of electrons bound to the surface of liquid helium. Such microwave absorption has been observed since the 1970s and is the basis of quantum computing schemes that use electrons on helium. We study theoretically the effect of a tilted magnetic field on the microwave absorption. It is found that the absorption lineshape will change from a symmetric Lorentzian to an asymmetric Fano lineshape as the tilted field is increased. Thus application of the tilted field permits control of the lineshape.

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Date submitted: 04 Dec 2005

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