## Abstract Submitted for the DPP10 Meeting of The American Physical Society

Key Aspects of EBW Heating and Current Drive in Tokamaks¹ JAKUB URBAN, Institute of Plasma Physics, Czech Academy, JOAN DECKER, EURATOM-CEA, Cadarache, France, JOSEF PREINHAELTER, Institute of Plasma Physics, Czech Academy, GARY TAYLOR, PPPL, LINDA VAHALA, Old Dominion University, GEORGE VAHALA, William & Mary — Electron Bernstein wave (EBW) heating and current drive is modeled by coupled mode conversion, ray-tracing (AMR) and Fokker-Planck (LUKE) codes. Deposition and current drive profiles are determined for EBW with various injection parameters under realistic spherical tokamak conditions. There parameters are varied to investigate the robustness of the applied scenarios. The importance of relativistic corrections to EBW absorption is considered. The differences between various relativistic models are explored.

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