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**Results and Advances in VALEN Resistive Wall Mode Modeling**<sup>1</sup> JAMES BIALEK, Columbia University, LONG POE KU, Princeton Plasma Physics Lab, ALLEN BOOZER, STEVEN SABBAGH, Columbia University — The resistive wall mode (RWM) code VALEN now has two versions: a single-mode and a new multi-mode version. The single-mode version of VALEN was used to analyze the RWM performance of the ITER 'VAC02' internal coil design. It was found that ITER scenario 4 may be stabilized up to beta normal of 3.8, well above the no wall beta normal limit of 2.5, with modest power and current requirements. The single-mode version of VALEN was also used to analyze upgrades to the RWM control system in the NSTX device. The new version of VALEN allows the inclusion of multiple plasma modes, both unstable and stable for multiple values of toroidal mode number. Both the multi-mode formulation and multi-mode calculations for HBT-EP and NSTX will be presented.

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