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Overview of the new capabilities of TORIC-v6 and comparison with TORIC-v5 R. BILATO, M. BRAMBILLA, IPP-Garching, N. BERTELLI, PPPL — Since its release[1], version 5 (v5) of the full-wave TORIC code, characterized by an optimized parallelized solver[2] for its routinely use in TRANSP package, has been ameliorated in many technical issues, e.g. the plasma-vacuum transition and the full-spectrum antenna modeling. For the WPCD-benchmark cases[3] a good agreement between the new version, v6, and v5 is found. The major improvement, however, has been done in interfacing TORIC-v6 with the Fokker-Planck SSFPQL solver to account for the back-reaction of ICRF and NBI heating on the wave propagation and absorption[4]. Special algorithms have been developed for SSFPQL for the numerical precision at high pitch-angle resolution and to evaluate the generalized dispersion function directly from the numerical solution. Care has been spent in automatizing the non-linear loop between TORIC-v6 and SSFPQL. In v6 the description of wave absorption at high-harmonics has been revised and applied to DEMO[5]. For high-harmonic regimes there is an ongoing activity on the comparison with AORSA[6]. [1]Brambilla, Bilato NF 46 (2006) S387.[2]Wright, et al. PoP 11 (2004) 2473.[3]Bilato, et al., 21st RF Conf. (2016) 1689.[4]Bilato, Brambilla NF 51 (2011) 103034.[5]Brambilla, Bilato NF 55 (2015) 023016.[6]Bertelli, et al. APS-DPP 2014

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