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The PLASIMO plasma modeling framework WOUTER GRAEF, DIANA MIHAILOVA, JAN VAN DIJK, GERRIT KROESEN, Eindhoven University of Technology — PLASIMO is a plasma modeling framework that has been under continuous development in the EPG plasma group at the Applied Physics Department of Eindhoven University of Technology since the 1990s. Since its initial form, aimed at modeling Inductively Coupled Plasmas and Cascaded Arcs, it has gained much functionality catering to a plethora of plasma applications: LTE and non-LTE, steady state and transient, flowing and non-flowing, with and without space charges, and from zero dimensional Global Models to full 3D simulations. The platform, which is developed in C++, is characterized by a high degree of modularization, offers a user friendly Graphical User Interface, and is available on multiple platforms, including Linux, Windows, and macOS. We present assorted applications where PLASIMO has been successfully employed, concentrating on recently added capabilities of the platform and their use cases.

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