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Plasma modeling techniques from Mirnov coils measurements. Review. ANDRS ORDUA MARTNEZ, MARTN DE JESS NIETO PREZ, Instituto Politecnico Nacional — A review on current techniques for plasma modeling in magnetic confinement devices given Mirnov coils measurements is presented. Parameters such as main plasma current position estimation, confinement quality, boundary transport, plasma growth rate among others can be estimated by means of Mirnov coil measurements. A description of the current techniques is presented as well as their applications and main features. On the other hand, prospective data driven techniques for estimation and even prediction of some of these parameters is discussed. This work is part of a master thesis project which aim is to evaluate current fluctuations in a magnetic confinement device using a Mirnov coil array.

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