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Electrical diagnostics of pulsed plasmas TOM HUISKAMP, GUUS PEMEN, Eindhoven University of Technology — In this contribution we present an overview of current and voltage diagnostics in fast transient plasmas. We explore the theoretical basis of different sensor systems and show examples of real-world implementations. Special emphasis is placed on measurement systems that can be home-made and offer a reliable and cost-effective means for fast voltage and current measurements. Additional topics include commercially available diagnostics and the calibration of sensors. Last but not least, we explore critical practical issues such as oscilloscope requirements, measurement cable requirements and electromagnetic compatibility for correct and noise-free measurements.

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