**EDICAM camera for runaway electron detection in JT-60SA disruptions**

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Runaway electrons are highly energetic particles which are generated in tokamaks whenever strong electric fields are present, such as disruptions. In high-current devices a large fraction of the plasma current can be converted into runaway electron current and the subsequent runaway beam might cause significant damage to the plasma facing components.

Visible cameras, like the EDICAM camera system installed on the JT-60SA tokamak [1], are often used to detect the synchrotron radiation from runaway electron beams in fusion devices. In this work we present runaway electron simulations in JT-60SA disruptions and investigate the applicability of the EDICAM system for the detection of the synchrotron radiation of runaway electrons.

The DREAM [2] disruption runaway electron simulation code was used to model a massive material injection induced disruption. The runaway electron distribution function from the kinetic DREAM simulation was given to the SOFT [3] synthetic synchrotron diagnostic framework and the visible radiation was calculated for the parameters of the EDICAM camera system. The key properties of the runaway electron beam affecting the detectability by EDICAM have been identified.

**References:**

1. T. Szepesi, et al., FED 153 111505 (2020)
2. M. Hoppe, et al., CPC 268 108098 (2021)
3. M. Hoppe, et al., NF 58 026032 (2018)