Filament dynamics dependence on plasma backgrounds including detachment

D. Schwörer et al., TH/P1-6

- 3D two fluid plasma model of filaments using STORM on self-consistent parallel background profiles was extended to include a fluid neutral model.

- Fig. 1 Shows the observed strong dependence of the radial velocity of critical sized filaments on target temperature.

- Plasma density was increased to achieve detached background profiles.

- Detachment has strong influence on filament dynamics, and the target temperature dependence only holds in attached conditions.

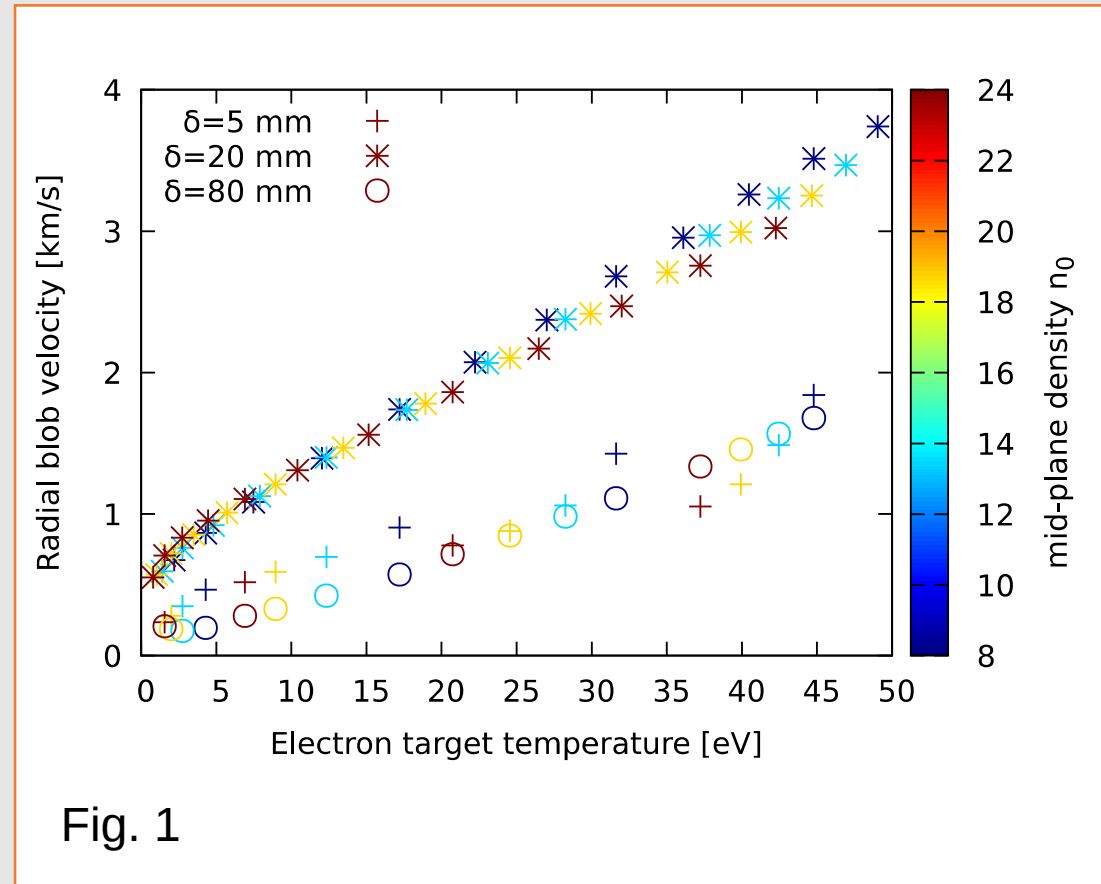- Detachment is stable for medium sized L-mode filaments.

Fig. 1

D. Schwörer et al, submitted to PPCF