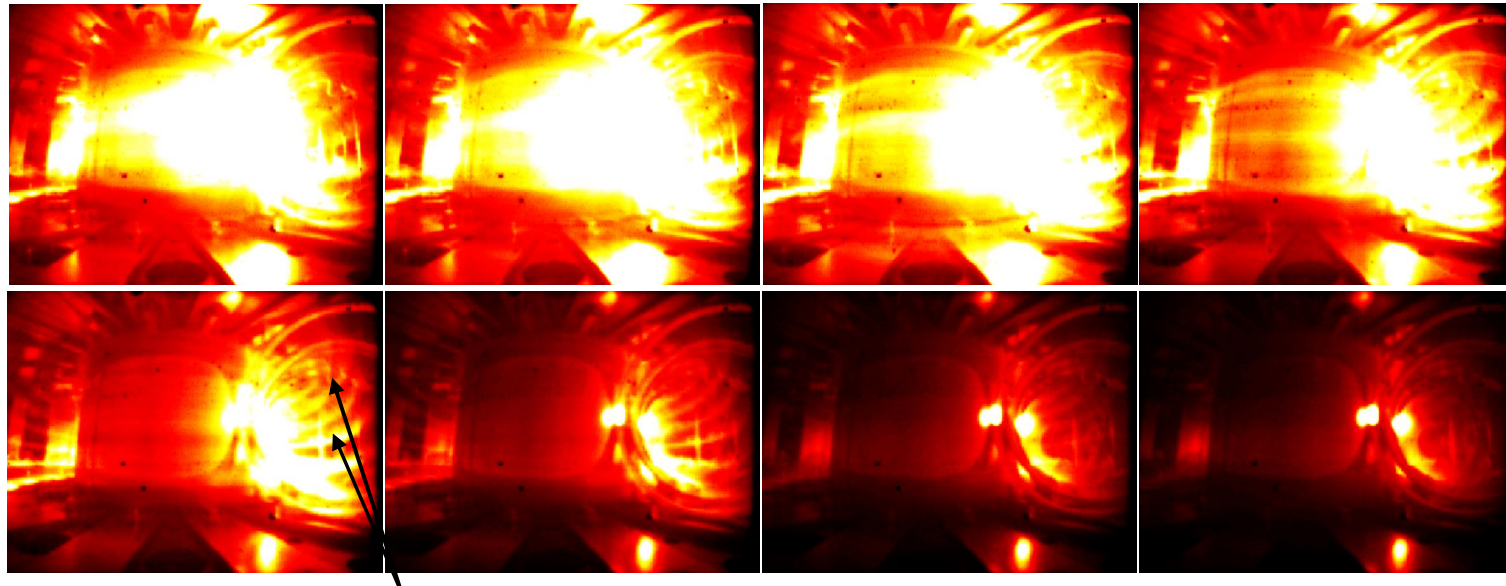


# Discharge termination in Aditya tokamak – filaments

ADITYA Tokamak

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Shot #28816; Image sequence is shown in false color



**Thick toroidal filaments**

- ☐ Prior to the thermal quench, MHD modes (islands) of  $m/n = 2/1$  and  $3/1$  grow and overlap significantly to give stochastic field and thereby rapid heat transport . thermal quench
- ☐ Current quench follows the thermal quench
- ☐ During the current-quench phase **thick toroidal filaments** are prevalent in all discharges
- ☐ Plasma conductivity decreases and outward particle flux is enhanced significantly following the thermal quench and rapid heat transport
- ☐ This destabilizes interchange modes with low poloidal wave-number
- ☐ The estimated poloidal mode number agrees well with the observed filaments