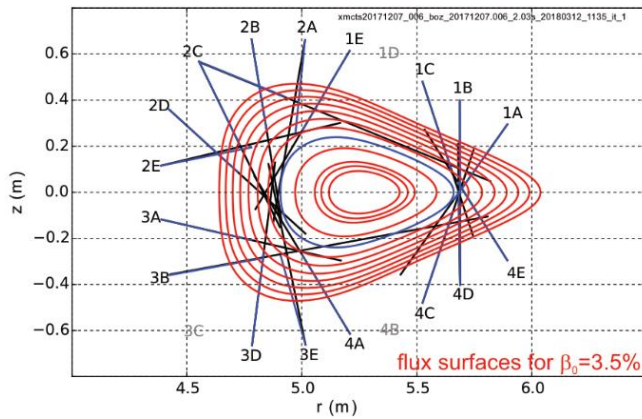


## MHD crashes in high-performance discharges

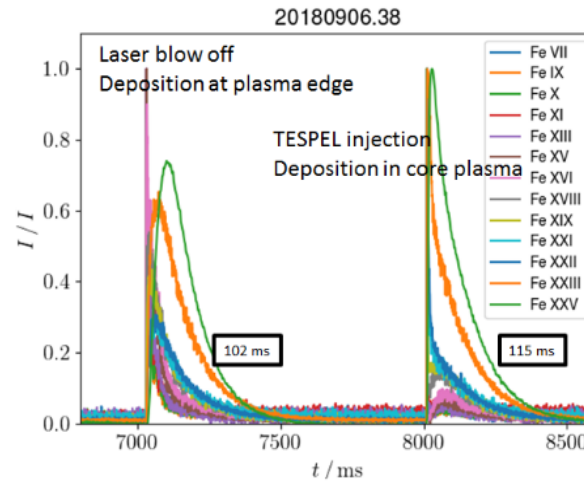


- MHD crashes in current drive and high performance experiment
  - ⇒ can lead to fast decay of plasma energy
  - ⇒ reconstruction of crash radius via soft X-ray tomography

## ● Impurity transport studies

- ⇒ injection of impurities via LBO and TESPEL
- ⇒ no core accumulation observed in ECR heating
- ⇒ confinement times smaller than expected from neoclassical diffusion
- ⇒ confinement correlated with core turbulence activity

## Impurity confinement studies



## ● Turbulence reduction in pellet-fueled discharges

- ⇒ strong reduction of turbulence amplitude during improved confinement phase
- ⇒ wavenumber-frequency spectra display signatures of ITG and TEM turbulence
- ⇒ linear simulations suggest mode suppression by spatially aligned temperature and density gradients

## Turbulence reduction during pellet fueling

