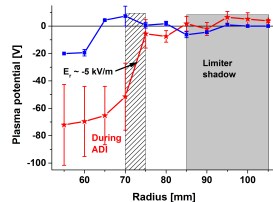
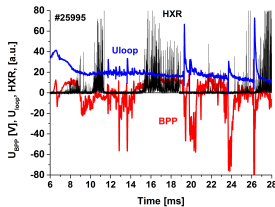
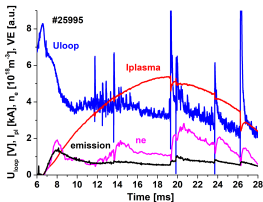


Anomalous Doppler Instability observation by the Ball-Pen Probe

- Low density discharges ($n_e \sim 10^{18} \text{ m}^{-3}$) in GOLEM exhibit an ADI, which is: i) manifested by 3 spikes of the U_{loop} ii) accompanied by an increase of HXR followed by an increase of the line average density \rightarrow signature of an enhanced plasma-wall interaction
- Edge plasma analysis by a nearly exact direct measurement of the plasma potential with BPP.



Temporal evolution of: left - a low density H discharge, mid - plasma potential at $r = 70 \text{ mm}$ and the HXR emission. Right - Radial profiles of the plasma potential during the appearance of the ADI