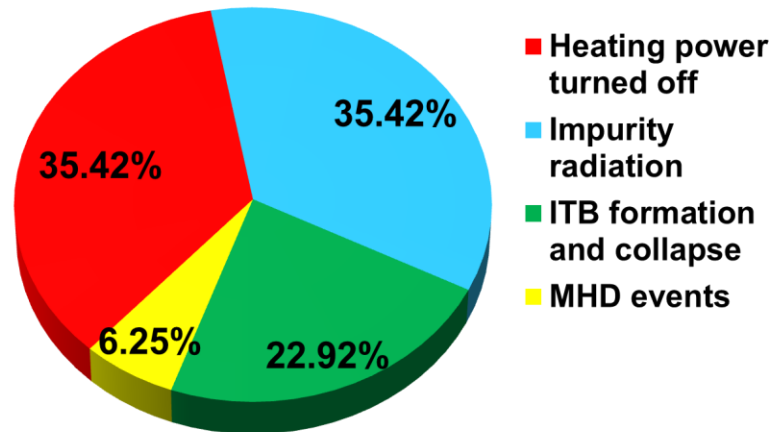


Experimental limitations of high β_N discharges in EAST 2015 campaign



- In 2015 campaign, higher normalized beta ($\beta_N = 1.5 \sim 2$) H mode plasmas have been achieved on EAST tokamak. The operational space for high β_N plasma is mainly limited by heating power on EAST. Operational space agreed with the stationary reversed shear discharges which is produced by NBI+LHCD on EAST.
- Key issues towards long pulse high β_N operation on EAST should be considered as follows: (1) Enhancement of NBI and LHW heating power; (2) Improvement of NBI and LHW heating and its control system for long pulse discharges; (3) Control of impurity accumulation and radiation during high power heating; (4) Study of ITB formation, development and its crash; (5) Study of MHD limitation at higher beta operation.
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