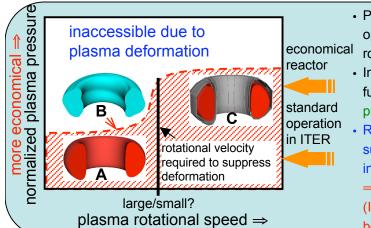


An achievement in JT-60 gives a perspective for higher performance operation in ITER

- a plasma pressure can be 1.6 times with small rotational speed of 15% of previous estimation -



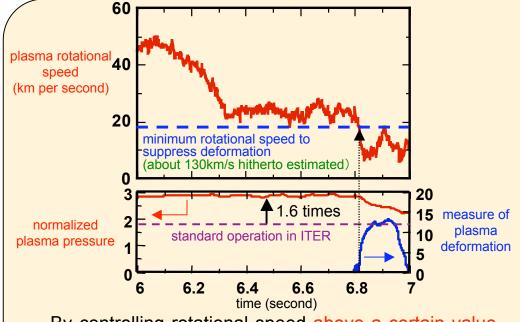
- Plasma pressure required in an ITER standard operation can be sustained independently on the rotational speed (A).
- In a higher pressure region, in which an economical fusion reactor will operate, deformation of a plasma prevents sustainment of high pressure (B).
- Rotating a plamsa in a conductor enables to suppression of deformation and allows pressure increase (C).
- ⇒How small can the rotation speed required be? (If it is small enough, ITER operational region can be extended to high pressure).



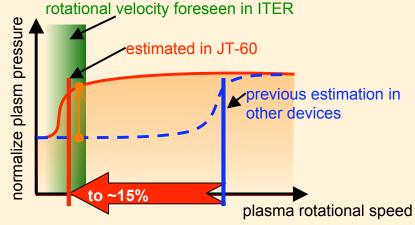


In JT-60, several neutral beams with various injection directions are installed so that the rotational speed can be controlled artificially.

⇒ detailed studies on suppression of deformation by changing the rotational speed with high injection power necessary to obtain high pressure.



By controlling rotational speed above a certain value, plasma deformation was prevented and high normalized pressure was sustained.



It was found that plasma deformation can be suppressed with much smaller rotational speed (15%) than that has been estimated in other devices.

- ⇒ deformation can be suppressed with rotational speed foreseen in ITER.
- ⇒perspective for extending ITER operational regime towards economical fusion reactor development.