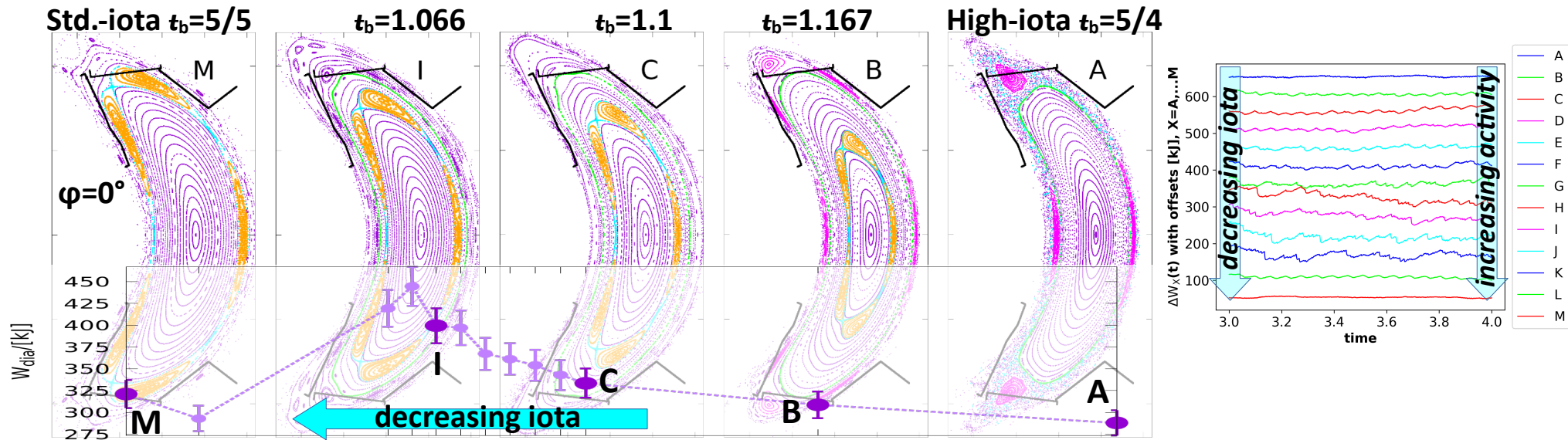


Confinement and Equilibrium with Internal Islands in a Configuration Scan with respect to ι in W7-X

J. Geiger et al, EX/P6-4



- Confinement variation in configuration scan (rotational transform t)
- Best confinement with 5/5-islands close to boundary
- Improved confinement accompanied with increasing MHD-activity around 5/5-islands => Island Localized Modes (ILM)
- Divertor configurations (islands forming boundary) rather quiet

- MHD-equilibrium calculations using HINT-code for consistently accounting for internal islands
- Flattening of pressure distribution in islands
- Deformations of equilibrium current densities due to flat pressure regions of internal islands

