# Magnetic island formation in locked-like mode in helical plasmas

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**We get following NEW discovery in locked-like mode in LHD experiments.**

- **The magnetic island structure is present.**
  **This indicates that the resistive interchange mode can induce the rotating magnetic island in the locking phase.**
- **The rotation speed of the magnetic island is not uniform in space.**
  **The toroidal structure of the island changes in the locking-phase, and the deformation increases till the mode is locked.**

**These results are quite meaningful to understand not only helical plasma but also the tokamak locked mode instability affecting the confinement.**

- **The sojourn time ( = staying time of O-point) is different at two toroidal position**