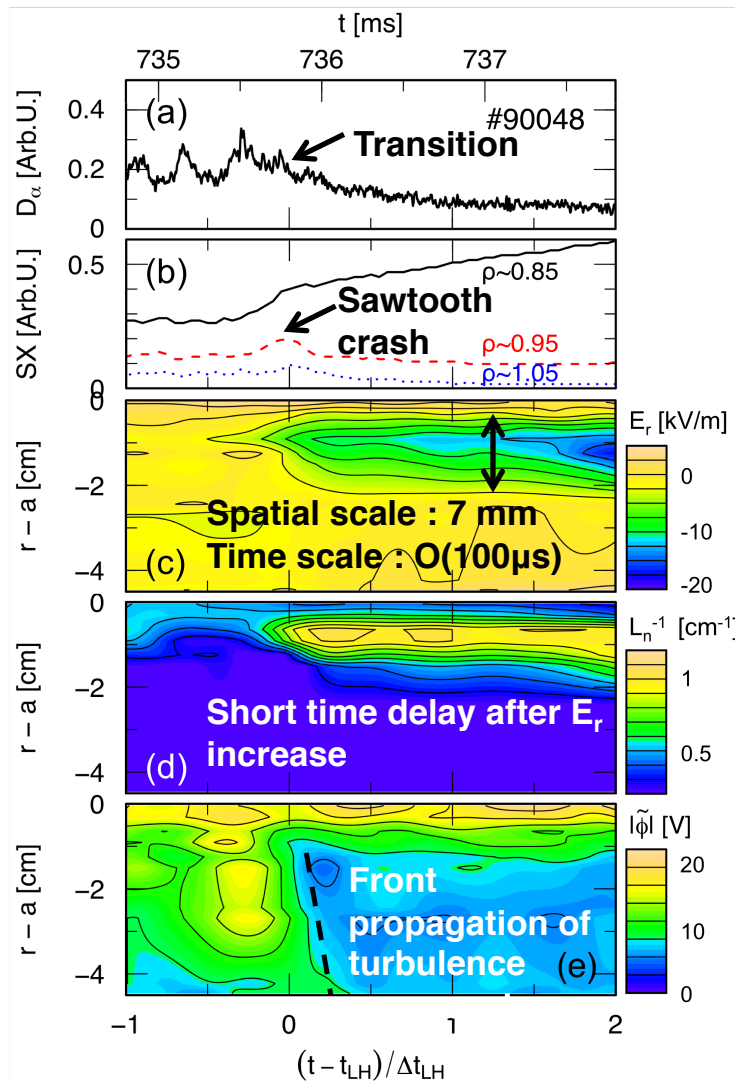


# Edge plasma dynamics during L-H transition in the JFT-2M tokamak

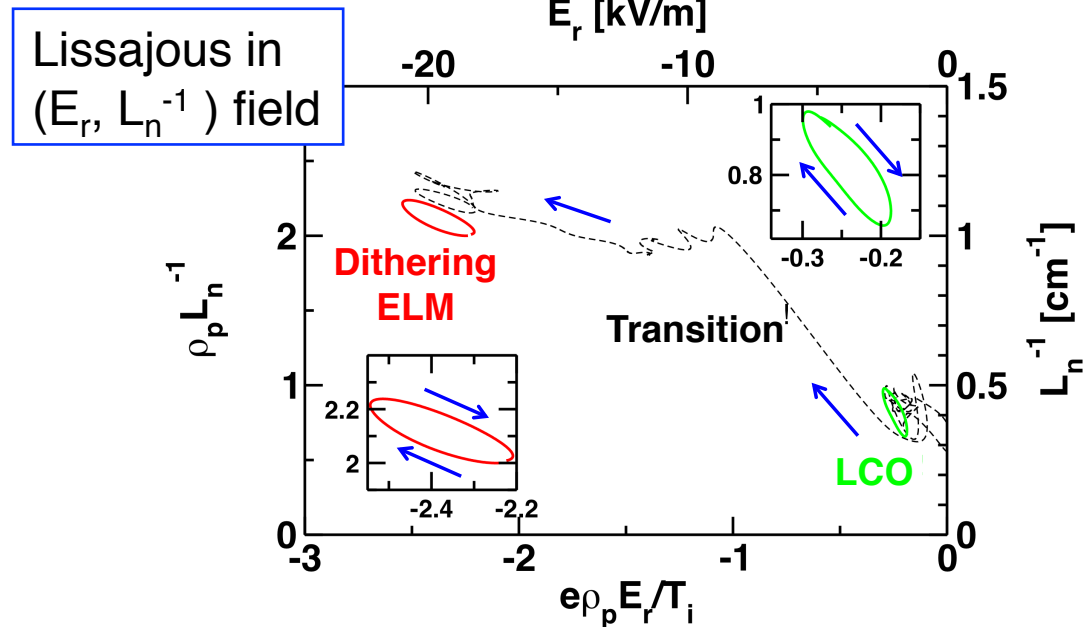
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✓ Using heavy ion beam probe, spatiotemporal evolutions of  $E_r$ ,  $L_n^{-1}$  and  $|\tilde{\phi}|$  are measured.

✓ Three kinds of transition dynamics:

- ① Limit-cycle oscillation (LCO),
- ② L-H transition,
- ③ dithering ELM.



Similar phase relation in the LCO, L-H transition and dithering ELM.

Large jump of  $|e\rho_p E_r / T_i| \sim 1$  can trigger the L-H  $\leftrightarrow$  Small  $|e\rho_p E_r / T_i|$  in the LCO or dithering ELM just oscillates the transport barrier.