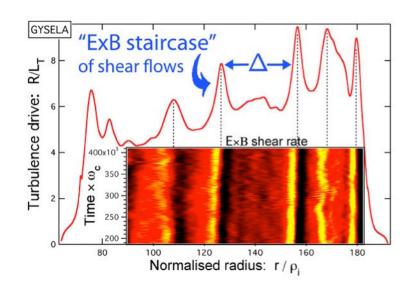
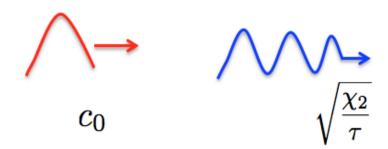
A New Theory of Mixing Scale Selection: What Determines the Avalanche Scale?

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TH/P7-7

- Staircase co-existence of heat avalanches and ExB sheared flows – observed to form.
 How understand the emergence of step size, an outer scale for avalanches? → Heat Flux Jam!
- A key element in the theory → time delay between instantaneous heat flux and mean heat flux. The finite time delay allows heat flux waves as a new exciton, in addition to heat flux pulses.
- For long response time, pulses overtake heat flux waves and jamming happens.





 The scale for the maximal jam growth is predicted. The scale is typically about 10 correlation length, comparable to avalanche outer scales observed in simulations