



Earthquake nucleation

Nucleation Models

1. SELF – SIMILAR MODEL

- Always fully dynamic process
- Slip velocity linearly increases with time
- Waves emission since initial stages of nucleation



2. CASCADE MODEL

- Small events with mutual triggering accumulate up to a big event
- Only the final stage is fully dynamic with waves emission

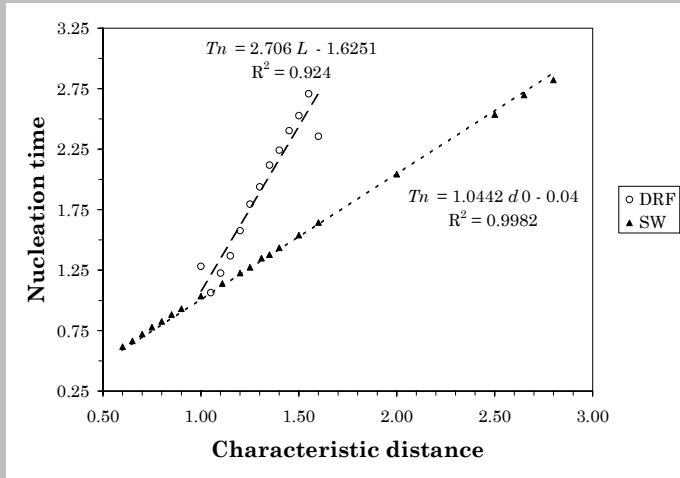
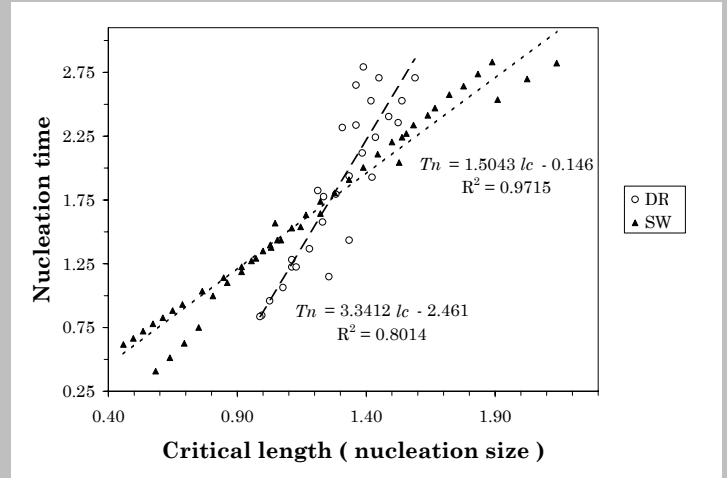
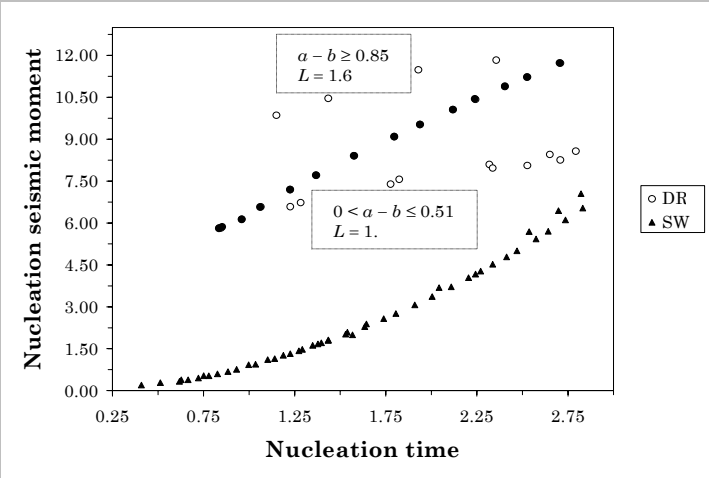


3. PRE – SLIP MODEL

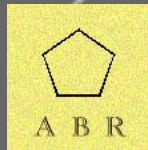
- Initially an aseismic process increases the total cracked area
- When a critical dimension is reached the process is spontaneous
- Dieterich and Andrews models



SW vs. DR law #4: The nucleation



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**Support Slides:
Parameters, Notes, etc.**

To not be displayed directly. Referenced above.

