

Dynamical phase transitions and kinetically constrained models

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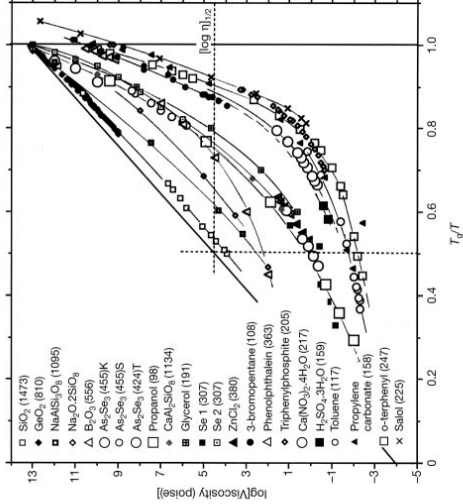
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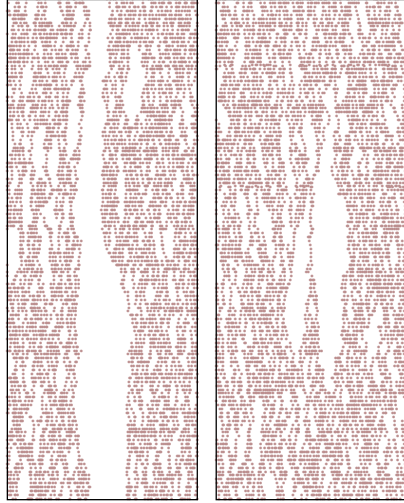
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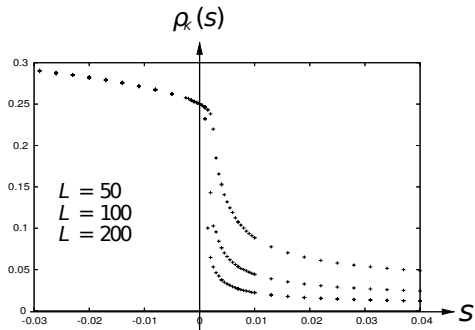
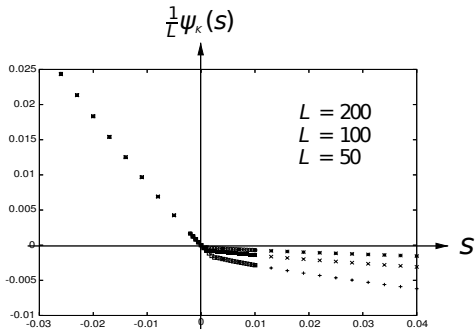
From: L.-M. Martinez & C. A. Angell
 Nature **410**, 663 (2001)



← space

time →

From: Mauro Merolle, Juan P. Garrahan, David Chandler
Proc. Natl. Acad. Sci. **102**, 10837 (2005)



Références :

- F. Ritort and P. Sollich, "Glassy dynamics of kinetically constrained models," *Advances in Physics* 52, no. 4 (2003): 219.
- L.-M. Martinez and C. A. Angell, "A thermodynamic connection to the fragility of glass-forming liquids," *Nature* 410, no. 6829 (April 5, 2001): 663-667.
- Juan P Garrahan et al., "First-order dynamical phase transition in models of glasses: an approach based on ensembles of histories," *Journal of Physics A: Mathematical and Theoretical* 42, no. 7 (2, 2009): 075007.
- Vivien Lecomte and Julien Tailleur, "A numerical approach to large deviations in continuous time," *Journal of Statistical Mechanics: Theory and Experiment* 2007, no. 03 (3, 2007): P03004-P03004.