(a) Finite dimensional lattices

fully extended **ergodic**

non-ergodic **multifractal**

localized

D_q

1

0

1

h/h_c

Vasquez, Rodriguez, Slevin, Roemer, PRB 2011

(b) Cayley tree (no loops)

D_q

De Luca, Altshuler, Kravtsov, Scardicchio PRL 2014
Tikhonov, Mirlin PRB 2016
Biroli, Tarzia 2018

finite regime non-ergodic **multifractal**

1

0

1

h/h_c

(c) MBL

D_q

1

0

1

h/h_c
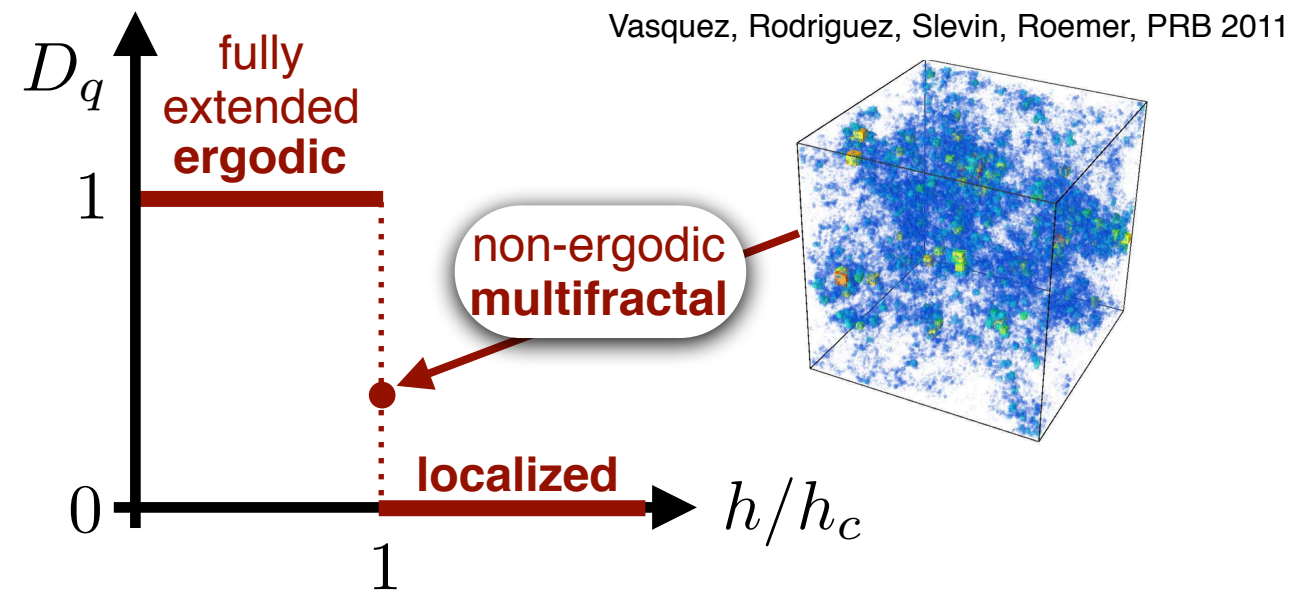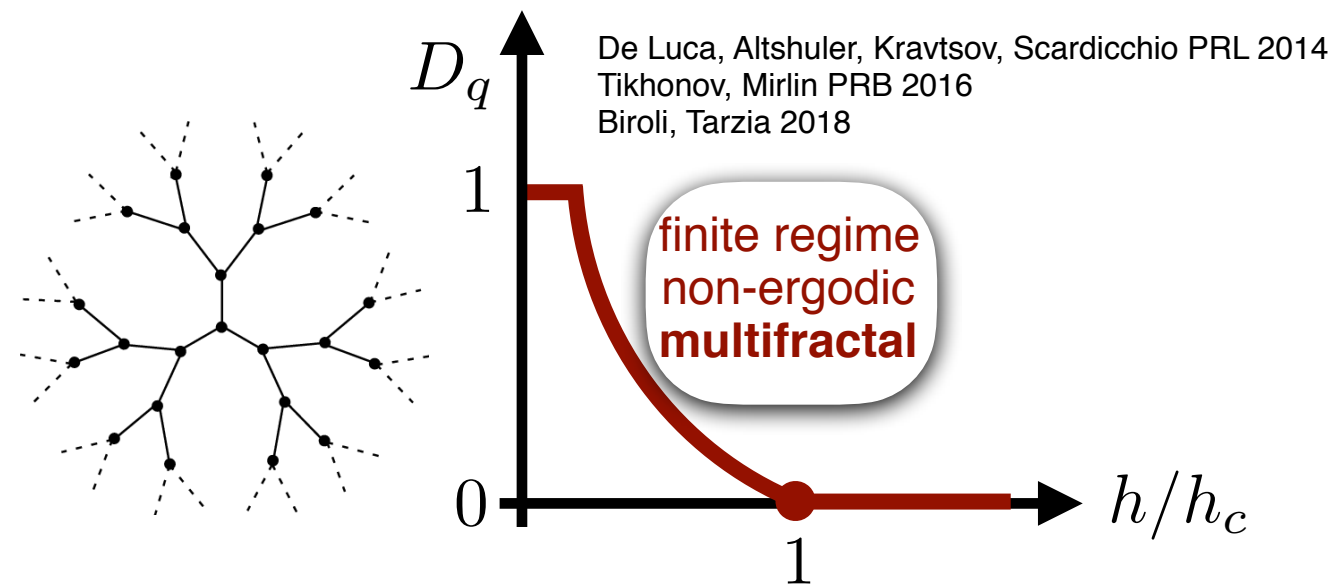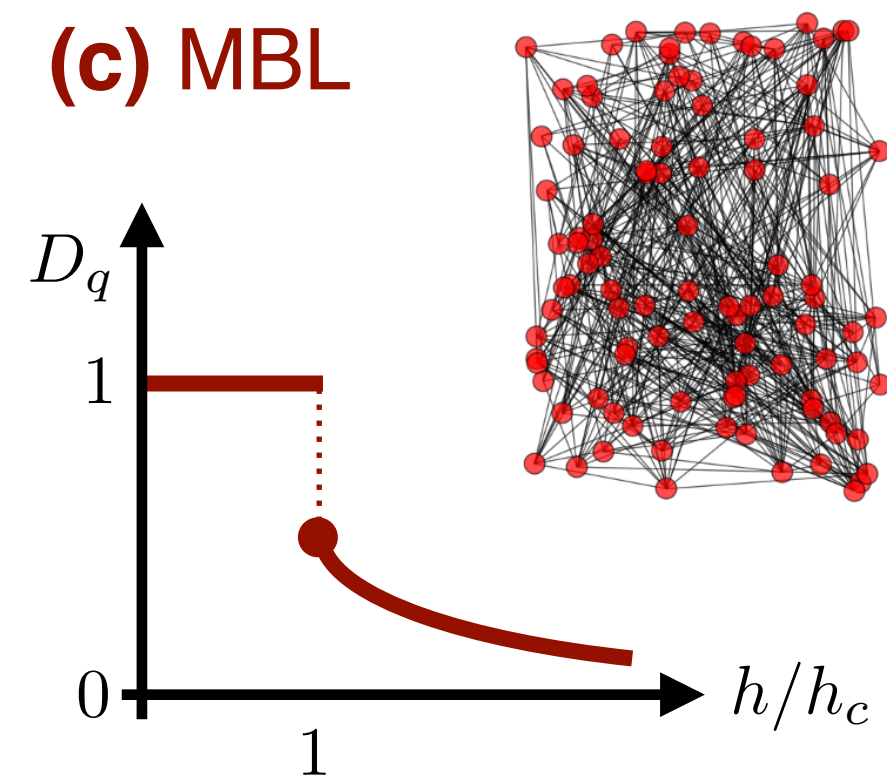
(d) Random regular graphs (with loops)

D_q

Garcia-Mata *et al.* PRL 2017
Tikhonov, Mirlin PRB 2019

no multifractal regime

1

0

1

h/h_c