Analysis Seminar

A Chung-Fuchs type theorem and degeneracy of critical Mandelbrot cascade measures

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Abstract: We will talk about the degeneracy of critical Mandelbrot cascades acting on ergodic measures of a symbolic space, that is the case when the entropy of the random weight equals the entropy of the ergodic measure. For the degeneracy we need to prove a Chung-Fuchs type theorem that, under mild assumptions, the summation of a random walk and a Brinkhoff sum, when their means are equal to zero, always has + infinite as limsup. The proof relies on Dekking's generalised recurrence theorem (1982) and the filling scheme introduced by Chacon and Ornstein (1960).

Date: 7 August 2023 (Monday)
Time: 14:30 p.m. – 15:30 p.m.

Venue: Room 222, Lady Shaw Building,
          The Chinese University of Hong Kong, Shatin

All are Welcome!