

Seminar

Dynamic condensates and giant fluctuations in mass aggregation processes

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In a number of physical processes, extremal quantities provide a natural description of the ordered phase of the system. In conserved mass aggregation models the ordered state, when exists, is identified with the presence of a condensate having a macroscopic mass content. In a broad variety of such models, *dynamic condensates* form during time evolution which hold a finite fraction of the mass in regions described by a growing length scale. Earlier we found that the growth of the dynamic condensates is dominated by unusually large fluctuations. Recently we observe that, even when conservation is violated by mass injection, the system reaches a 'steady state' carrying a condensate that accumulates almost the entire mass of the system; the mass of dynamic condensates formed while coarsening show fluctuations as large as their mean value, akin to fluctuation dominated order.

Wednesday, Oct 4th 2023

11:30 AM (Tea / Coffee 11.15 AM)

Auditorium, TIFR-H