

Tarbiat Modares

Tarbiat Modares University Department of Mathematics Pure Mathematics Seminar

## **Point-Shift Foliation of a Point Process**

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A point-shift F maps each point of a point process  $\Phi$  to some point of  $\Phi$ . For all translation invariant point-shifts F, the Ffoliation of  $\Phi$  is a partition of the support of  $\Phi$  which is the discrete analogue of the stable manifold of F on  $\Phi$ . It is first shown that foliations lead to a classification of the behavior of point-shifts on point processes. Both qualitative and quantitative properties of foliations are then established. It is shown that for all point-shifts F, there exists a point-shift FL, the orbits of which are the F-foils of  $\Phi$ , and which are measure-preserving. The foils are not always stationary point processes. Nevertheless, they admit relative intensities with

## respect to one another.

## Date: Tuesday, Bahman 27th, 1394 Time: 11:00–12:00 Venue: Math Building, Seminar Room 3401