Seminar Announcement

<u>Speaker</u>: Ravindra B. Bapat

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<u>Date</u>: 7th February, 2018

<u>Time:</u> 2:00pm - 3:00pm

<u>Venue</u>: Indian Statistical Institute, 110 Nelson Manickam Road, Aminjikarai, Chennai.

<u>Title</u>: The number of spanning trees in a Ferrers graph

<u>Abstract</u>: A Ferrers graph is a bipartite graph whose edges are in direct correspondence with the boxes in a Ferrers diagram. Ehrenborg and van Willigenburg proved an attractive formula for the number of spanning trees in a Ferrers graph. Several proofs of the formula are known. We give yet another proof based on resistance distance. The main tool is a result which gives necessary and sufficient conditions under which the removal of an edge in a graph does not affect the resistance distance between the end-vertices of another edge. A related conjecture of Ehrenborg on an upper bound for the number of spanning trees in an arbitrary bipartite graph is also discussed.