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"Probabilistic Methods in Cancer Biology"

Thursday, March 7, 2013

Andrus Gerontology Center (GER 124) Lecture 3:00 PM

Andrus Gerontology Center Patio Reception 4:00 PM

Hosted by Dr. Michael Safonov

In this talk I will review some problems in cancer biology, specifically reverse-engineering gene interaction networks, predicting the responsiveness of patients to specific therapies, and time to recurrence of tumors, and explore how methods of graph theory, machine learning, and compressive sensing can be used to study these problems. Some promising preliminary results will also be presented, and open problems for future research will be indicated.



Mathukumalli Vidyasagar received his Ph.D. degree from the University of Wisconsin, Madison, in 1969. Between 1969 and 1989, he was a Professor of Electrical Engineering, mostly in Canada. In 1989 he returned to his native India, and spent the next twenty years in the Government, and in the private sector. In 2009 he retired and joined the University of Texas at Dallas. His current research interests are computational biology of cancer, and control theory. He has received a number of awards in recognition of his research contributions, including Fellowship in The Royal Society, the world's oldest scientific academy in continuous existence, the IEEE Control Systems (Field) Award, and the Rufus Oldenburger Medal of ASME. He is the author of ten books and nearly 140 papers in peer-reviewed journals.

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