

Mathematics Department Colloquium

Organizer: Maciej Zworski

Thursdays, 4:10–5:00pm, 60 Evans

April 21 **Lisa Goldberg**, BARRA

Variations on a Theme of Paul-André Meyer

Mathematical models of earthquakes, heart attacks and corporate defaults are based on point processes on the positive real line. In 1971, Paul-André Meyer proved the elegant fact that a typical \mathbf{R}_+ valued point process can be time scaled to a standard Poisson process. This result brings the large and powerful battery of statistical tests of the Poisson process to bear on many widely used mathematical models.

Only recently has Meyer's result been applied to mathematical models of corporate default. I will explain how Meyer's result suggests an alternative approach to default forecasting that appears to be superior to the approach that is standard in the industry.