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A cemmap masterclass: Random Sets in Economics

Ilya Molchanov (University of Bern)

Day 1: Wednesday 18th April 2012

- 10:30 - 11:00 Registration, Coffee
- 11:00 - 12:30 **Session 1: Distributions of Random Sets**
basic examples, formal definition of a random set, probability distribution of a random closed set
- 12:30 - 13:30 Lunch
- 13:30 - 15:00 **Session 2: Selections and measurability issues**
selections as random points belonging to random sets, operations with random sets, characterisation of selections, weak convergence
- 15:00 - 15:30 Break
- 15:30 - 17:00 **Session 3: Basic estimation ideas**
empirical capacities and their convergence, functional limit theorem, stationary random sets, quantiles, minimum contrast estimation

Day 2: Thursday 19th April 2012

- 09.30 – 09.45 Coffee
- 09:45 - 11:15 **Session 4: Minkowski sums**
selection expectation, law of large numbers and central limit theorem, Gaussian random sets
- 11:15 - 11:45 Break
- 11:45 - 13:15 **Session 5: Unions, heavy tails and stability**
heavy tailed distributions, stable random sets, unions, other definitions of expectation
- 13:15 - 14:15 Lunch
- 14:15 - 15:45 **Session 6: Set-valued processes**
examples of set-valued processes, martingales, differential inclusions, pricing with transaction costs