Global Technical Incerto Reading Club

Kick-off meeting

11 January 2021

Agenda

- **Introduction to Reading Club (Ron Richman) (5-10 min)**
- **Extreme Value Theory for a 1-in-200 event (James Sharpe) (45 min)**

Who am I?

- **South African Actuary**
- **Work in general and life insurance**
- **Often come across insurance and market data that have fat tails**
- **Need to quantify outcomes at very extreme percentiles (1-in-200 year events)**

Mediocristan	Personal Lines Life Insurance Expected Outcomes
Extremistan	Commercial Lines Pandemic Risk Capital Requirements

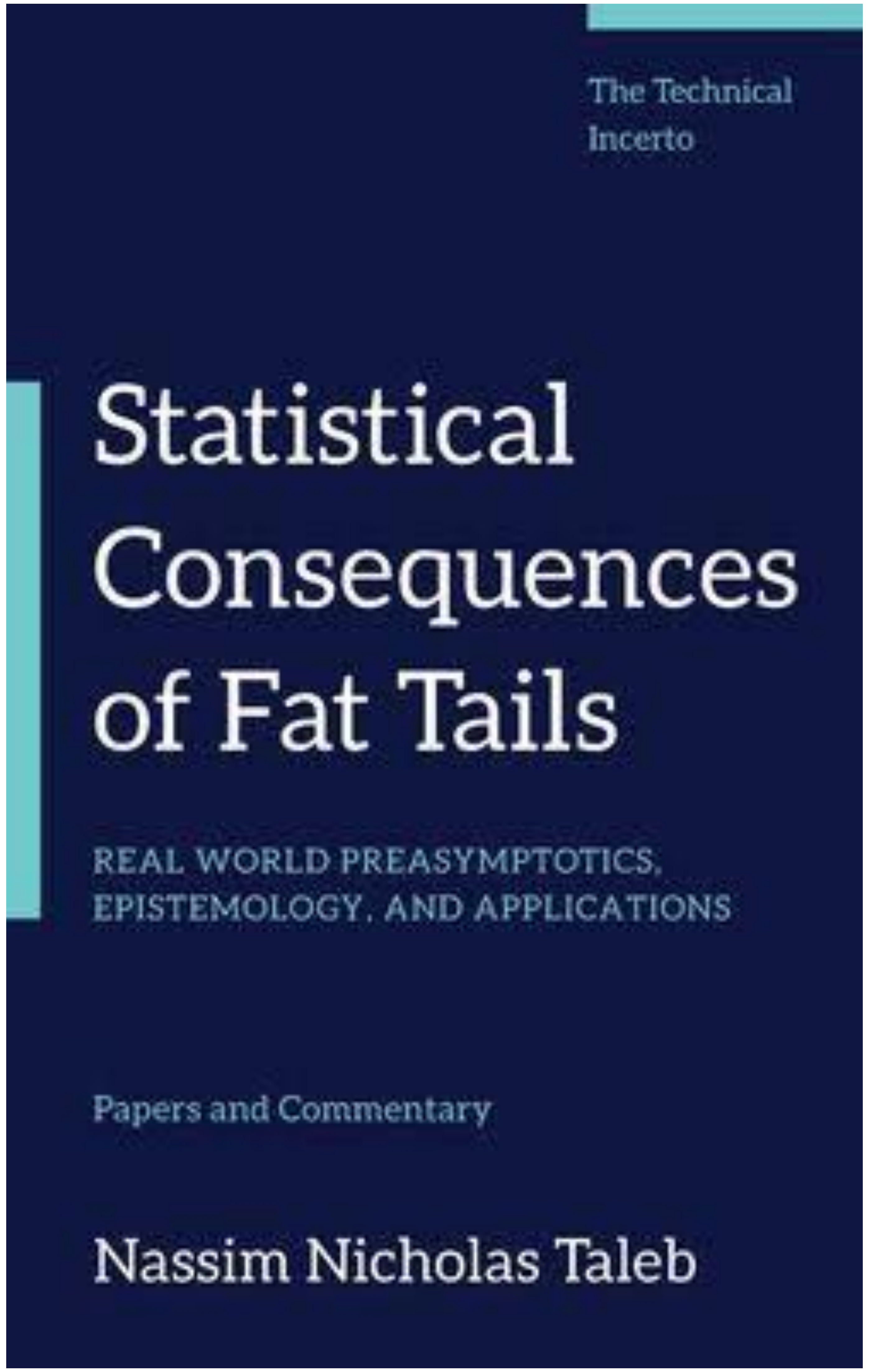
Reading Club

- **Group of people interested in learning more about Nassim Taleb's risk, statistical and finance works in the Technical Incerto.**
- **Aim to read through the first volume of this series during 2021 and beyond**
- **Statistical Consequences of Fat Tails: Real World Preasymptotics, Epistemology, and Applications**
- https://arxiv.org/abs/2001.10488
- **Aims:**

  Benefit of large group reading together

  Monthly presentation and discussion

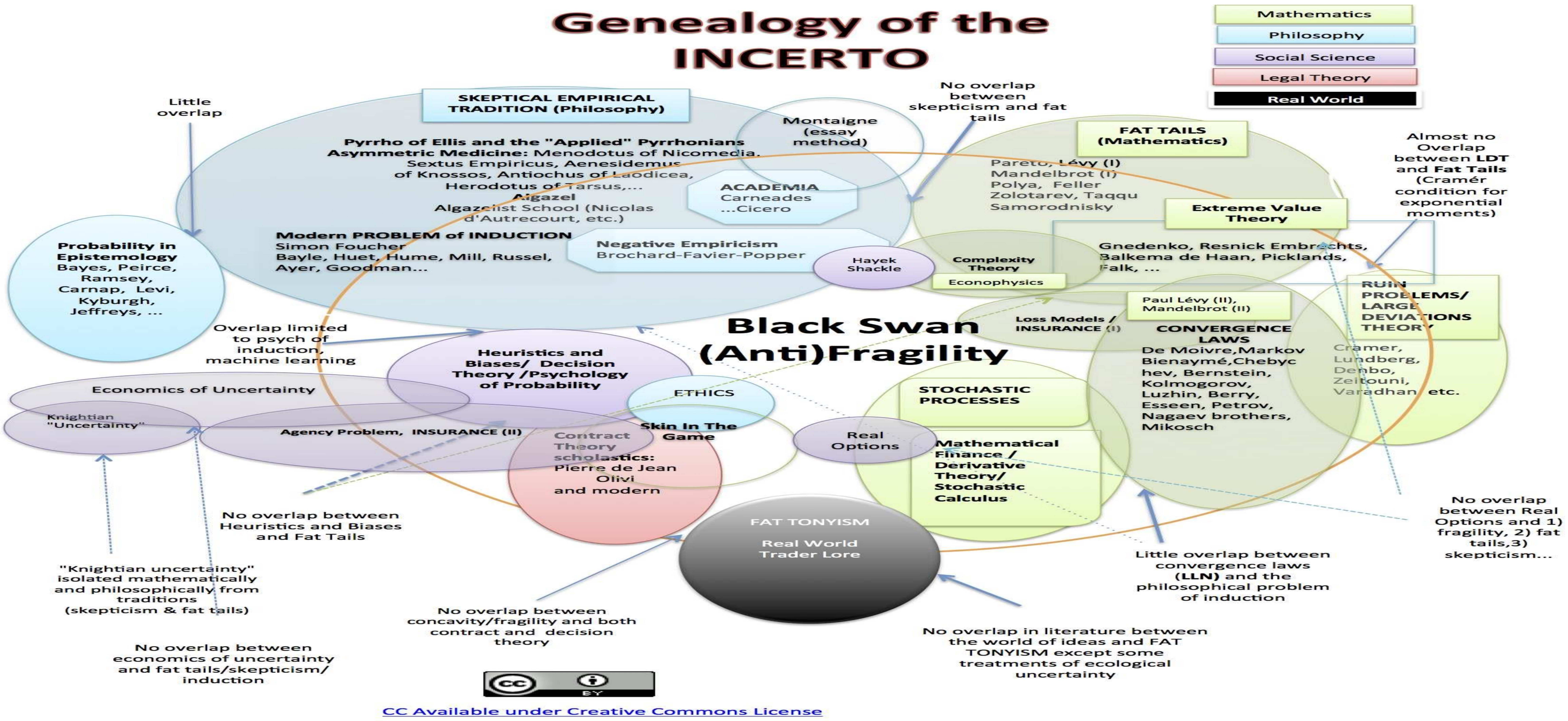
  Make code to reproduce/apply results freely available



How the meetup will work

- **Divide sessions between:**
  - Presentation covering key themes in ~1 Chapter (30 Minutes)
  - Discussion of the themes (45 minutes)
- **Call for volunteers**
  - Monthly presentation
  - Discussion leader
  - Code backing the monthly presentation – R/Python
  - Website for the group – GitHub pages with links to recordings
- **Please contact me on ronaldrichman@gmail.com**
- **Nassim Taleb will speak during Session 2**
- **9 February 2020 at 17:00 GMT**

Map



Genealogy of the INCERTO
Mathematics
Philosophy
Social Science
Legal Theory
Real World
SKEPTICAL EMPIRICAL TRADITION (Philosophy)
Pyrrho of Ellis and the "Applied" Pyrrhonians
Asymmetric Medicine: Menodotus of Nicomedia, Sextus Empiricus, Aenesidemus of Knossos, Antiochus of Laodicea, Herodotus of Tarsus,...
Algazel
Algazelist School (Nicolas d'Autrecourt, etc.)
Modern PROBLEM of INDUCTION
Simon Foucher
Bayle, Huet, Hume, Mill, Russel, Ayer, Goodman...
Montaigne (essay method)
ACADEMIA
Carneades
...Cicero
Negative Empiricism
Brochard-Favier-Popper
Little overlap
No overlap between skepticism and fat tails
FAT TAILS (Mathematics)
Pareto, Lévy (I)
Mandelbrot (I)
Polya, Feller
Zolotarev, Taqqu
Samorodnisky
Extreme Value Theory
Gnedenko, Resnick Embrechts, Balkema de Haan, Picklands, Falk, ...
Almost no Overlap between LDT and Fat Tails (Cramér condition for exponential moments)
Probability in Epistemology
Bayes, Peirce, Ramsey, Carnap, Levi, Kyburgh, Jeffreys, ...
Hayek
Shackle
Complexity Theory
Econophysics
RUIN PROBLEMS/ LARGE DEVIATIONS THEORY
Paul Lévy (II), Mandelbrot (II)
Loss Models / INSURANCE (I)
CONVERGENCE LAWS
De Moivre, Markov
Bienaymé, Chebychev, Bernstein, Kolmogorov, Luzhin, Berry, Esseen, Petrov, Nagaev brothers, Mikosch
Cramer, Lundberg, Denbo, Zeitouni, Varadhan etc.
Black Swan (Anti)Fragility
Overlap limited to psych of induction, machine learning
Heuristics and Biases/ Decision Theory /Psychology of Probability
Economics of Uncertainty
Knightian "Uncertainty"
Agency Problem, INSURANCE (II)
ETHICS
Skin In The Game
Contract Theory scholastics: Pierre de Jean Olivi and modern
Real Options
STOCHASTIC PROCESSES
Mathematical Finance / Derivative Theory/ Stochastic Calculus
FAT TONYISM
Real World Trader Lore
No overlap between Heuristics and Biases and Fat Tails
"Knightian uncertainty" isolated mathematically and philosophically from traditions (skepticism & fat tails)
No overlap between concavity/fragility and both contract and decision theory
No overlap between economics of uncertainty and fat tails/skepticism/ induction
No overlap in literature between the world of ideas and FAT TONYISM except some treatments of ecological uncertainty
Little overlap between convergence laws (LLN) and the philosophical problem of induction
No overlap between Real Options and 1) fragility, 2) fat tails,3) skepticism...
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