



**ANAND VIDYASHANKAR**

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## EMPIRICAL PROCESSES

EMPIRICAL PROCESSES IS A SET OF LECTURES WITHIN THE COURSE OF **ADVANCED STATISTICAL METHODS FOR THE MATHEMATICS FOR DATA SCIENCE STUDY PLAN**

### Syllabus

- Motivation to Empirical Processes and High dimensional problems.
- Concentration bounds and their functional versions.
- Maximal Inequalities
- Large deviation Theory
- Uniform laws of large numbers
- Metric entropy and its applications
- Central limit Theorems
- Applications to Robust Inference and Classification problems
- Applications to Branching Processes and Markov Processes (time permitting)

### SCHEDULE

Monday 2019/06/10 9.00-12.00  
 Tuesday 2019/06/11 9.00-12.00  
 Friday 2019/06/14 9.00-12.00  
 Monday 2019/06/17 9.00-12.00  
 Tuesday 2019/06/18 9.00-12.00  
 Thursday 2019/06/20 9.00-12.00  
 @ Room 220, Polo Ferrari 1

### DETAILS

- Venue: Polo Scientifico e Tecnologico F. Ferrari
- Language: English
- Admission: Course is open to everyone and free.
- How to apply: send an email to Claudio Agostinelli (claudio.agostinelli@unitn.it)

### INFORMATION:

<http://datascience.maths.unitn.it/events/ep2019/index.html>



**UNIVERSITÀ DEGLI STUDI  
DI TRENTO**

**Dipartimento di Matematica**