Statistics and Introduction to STATA
In Cooperation with the GRADE Center GSEFM

Objective
The GRADE Center GSEFM opens its „pre-semester courses“, held by advanced PhD candidates, to all PhD candidates registered at GRADE. These courses cover different topics.

Description
1. Introduction to STATA
2. Probability
3. Distribution of Random Variables (Theory and Numerical Illustration in STATA)
   - Bernoulli and Poisson Distributions
   - Exponential Distribution
   - Normal Distribution
   - Transformations of Normal Random Variables: Chi Square, t and F Distributions
3. Multivariate Random Variables (Theory and Numerical Illustration in STATA)
   - Multivariate Normal Distribution
   - Expectations
   - Covariances and Correlation
   - Conditional Distributions
4. Moment Generating Functions and Transformations of Distributions

Conditions
Participants are expected to have a solid undergraduate background in mathematics. Those missing some of this background are expected to have worked through the following reference prior to the beginning of the course:


Organizational Information

<table>
<thead>
<tr>
<th>Language</th>
<th>English</th>
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<tbody>
<tr>
<td>Target group</td>
<td>Doctoral Candidates at all stages from all faculties</td>
</tr>
<tr>
<td>Date</td>
<td>Friday, 1 October 2021, 10:00 – 12:00 &amp; 13:00 – 15:00</td>
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<td>Monday-Wednesday 4-6 October 2021, 10:00 – 12:00 &amp; 13:00 – 15:00</td>
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<td>Registration</td>
<td>For registration click here</td>
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