



Georg-August-Universität  
Göttingen



# Seminar of Mathematical Models in Computer Networks

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# General Information



- Title: Mathematical Models in Computer Networks
  - Objective:
    - to help PhD students familiar with useful mathematical models and their applications in computer network research
  - Duration: 4 days teaching + one day discussion
  - Seminar web page:  
<http://cs.nju.edu.cn/lwz/>
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# Schedule



- 1. Feb 15, 15:00-17:30: Optimization models: one variable optimization and multivariable optimization
  - 2. Feb 16, 15:00-17:30: Computational methods for optimization: dynamic programming and linear programming
  - 3. Feb 17, 15:00-17:30: Probability models I: exponential distribution and Poisson process
  - 4. Feb 18, 15:00-17:30: Probability models II: Markov chain and its applications
  - 5. Feb 23, 15:00-17:30: Paper reading and free discussions
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# References

- 1. Mark M. Meerschaert, **Mathematical Modeling (3th Edition)**, Elsevier Academic Press, 2007.
- 2. Anurag Kumar, D. Manjunath, and Joy Kuri, **Communication Networking - An Analytical Approach**, Morgan Kaufmann Publisher, 2004
- 3. Sheldon M. Ross, **Introduction to Probability Models (Tenth Edition)**, Academic Press, 2009

