

# FENGNAN GAO

## Personal Details

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Homepage: <https://gaofn.github.io/>

## Research Interests

Nonparametric Bayesian Statistics

High-dimensional Statistical Inference in Networks

Probabilistic Methods in Networks

## Professional Appointments

Sep. 2016 - Assistant professor jointly appointed by the School of Data Science of Fudan University and Shanghai Center for Mathematical Science

## Education

Sep. 2012 - PhD student of Prof. Dr. AAD VAN DER VAART  
Aug. 2016 Leiden University, The Netherlands

Sep. 2010 - Master of Science in Industrial and Applied Mathematics  
Sep. 2011 Department of Mathematics & Computer Science / EURANDOM  
Eindhoven University of Technology, The Netherlands

Aug. 2009 - Master of Science in Industrial Mathematics  
Aug. 2010 Department of Mathematics  
Kaiserslautern University of Technology, Germany  
Aggregate grade: Very good (*Sehr Gut*)

Sep. 2005 - Bachelor of Science in Statistics  
Jun. 2009 Department of Mathematics  
Nanjing University, China  
Major GPA 88/100 Rank 4/43

## Papers

2015 Posterior contraction rates for deconvolution of Dirichlet-Laplace mixtures  
*Eletronical Journal of Statistics*

<http://projecteuclid.org/euclid.ejs/1457123508>

2015 On the Asymptotic Normality of Estimating the Affine Preferential Attachment Network Models with Random Initial Degrees  
*Submitted to Stochastic Processes and their Applications, under revision*

<http://arxiv.org/abs/1603.02625>

***In preparation***

2016 On the Asymptotic Normality of Estimating Parametric Preferential Attachment functions

2015 On the Consistency of Estimating General Preferential Attachment functions

2014 Modeling and Inference of Networks of the Internet Movie Database with Preferential Attachment Model

## Selected Talks & Presentations

Dec. 2016	Invited talk for the closing workshop of <i>Dynamic Networks</i> In <i>the Issac Newton Institute for Mathematical Science</i> , To be given in <i>Cambridge, UK</i>
Jul. 2016	World Congress in Probability and Statistics In <i>Toronto, Canada</i>
May 2016	Invited talk in Shanghai Center for Mathematical Science In <i>Shanghai, China</i>
Jul. 2015	European Meeting of Statisticians In <i>Amsterdam, The Netherlands</i>
Jun. 2015	10th Conference on Bayesian Nonparametrics In <i>Raleigh, NC, The USA</i>

## Academic Activities

Sep. 2015	Statistics Mathematics and Applications In <i>Fréjus, France</i>
Jun. 2014	Institute of Mathematical Statistics Annual Meeting In <i>Sydney, Australia</i>
Mar. 2014	Spring School of Structural Inference in Statistics In <i>Königs Wusterhausen, Germany</i>
Nov. 2013	STATS IN PARIS STATISTICS & ECONOMETRICS OF NETWORKS In <i>ENSAE, Paris, France</i>
Jul. 2013	29th European Meeting of Statisticians In <i>Budapest, Hungary</i>
Jun. 2013	9th Conference on Bayesian Nonparametrics In <i>Amsterdam, The Netherlands</i>
Mar. 2013	Spring School of Structural Inference in Statistics In <i>Bad Belzig, Germany</i>
Sep. 2010	European Summer School in Industrial Mathematics In <i>Milan, Italy</i>

## Master's Thesis

Sep. 2011	Master thesis - Modeling and Inference of Internet Movie Database <a href="http://alexandria.tue.nl/extra1/afstvers1/wsk-i/gao2011.pdf">http://alexandria.tue.nl/extra1/afstvers1/wsk-i/gao2011.pdf</a> Supervisors: REMCO VAN DER HOFSTAD & RUI CASTRO <i>We analyzed the dataset from the Internet Movie database (IMDb) with Python, MATLAB, SQL from a network perspective. We proposed a modified version of preferential attachment model for the evolution of the movie-actor network of the IMDb. With parameters estimated by statistical procedures, the simulation results resemble the reality. Using probabilistic inequalities and martingale arguments, we proved rigorously that, in the model described, the (movie) degree sequence converges to a explicit sequence as the network size goes to infinity.</i>
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## Scholarships & Awards

2016	IMS travel award <i>To facilitate travelling for the World Congress in Probability and Statistics to Toronto, Canada</i>
2015	ISBA travel award <i>To facilitate travelling for 10th BNP conference to Raleigh, NC, The USA</i>
2005 - 2008	Three years of Renmin Scholarships from Nanjing University <i>Awarded for excellent academic performance</i>

## Computer Skills

R, Python, MATLAB, SQL, SAS, C++  
Experienced user in  $\text{\LaTeX}$  as a contributor in China  $\text{\TeX}$  group

## Hobbies

Photography, Amateur Road Biking, Rowing