

Céline Comte

Eindhoven University of Technology
Department of Mathematics & Computer Science
P.O. Box 513, 5600 MB Eindhoven, The Netherlands

E-mail: c.m.comte@tue.nl
Homepage: <https://www.win.tue.nl/~ccomte/>

Education

Ph.D. in Computer Science – Institut Polytechnique de Paris, France _____ 2016 – 2019
Information, Communications, Electronics option.

Supervisor: Thomas Bonald – Co-supervisor: Fabien Mathieu – Reviewers: Christine Fricker, Michel Mandjes.
Other members of the jury: Hind Castel-Taleb, Nicolas Gast, Alain Jean-Marie (President), Volker Hilt.

M.Sc. in Computer Science – École Polytechnique & Télécom ParisTech, France _____ 2015 – 2016
Advanced Communication Networks option. Obtained with a distinction.

Engineer’s degree – Télécom ParisTech, France _____ 2013 – 2016
Networks and *Cryptography and Information Theory* options.

B.Sc. in Mathematics – University Paris-Sud 11, France _____ 2010 – 2013
Mathematics and Computer Science option. Obtained with a distinction.

Research experience

Postdoctoral Researcher – TU Eindhoven, The Netherlands _____ Nov. 2019 – Present
Robust Load-Balancing Algorithms for Computer Clusters.

Supervisor: Sem Borst.

Ph.D. Student – Nokia Bell Labs & Télécom Paris, France _____ Oct. 2016 – Sept. 2019
Resource management in Computer Clusters: Algorithm Design and Performance Analysis.

Supervisors: Thomas Bonald and Fabien Mathieu.

Intern Researcher – Télécom ParisTech, France _____ March – Aug. 2016
Balanced Fair Resource Sharing in Computer Clusters.

Supervisor: Thomas Bonald.

Teaching experience

Stochastics and Simulation for Finance – TU Eindhoven, The Netherlands _____ 2020 – Present
Lecturer – Bachelor, 3rd year – 63 students in 2020–2021

Queueing Systems – TU Eindhoven, The Netherlands _____ 2019 – Present
Instructor – Bachelor, 3rd year – 42 students in 2019–2020

Stochastic Performance Modelling – TU Eindhoven, The Netherlands _____ 2019 – Present
Lecturer and instructor – Bachelor, 3rd year – 32 students in 2019–2020

Propagation in Graphs – École Polytechnique & Télécom ParisTech, France _____ 2016 – 2019
Lecturer – Master, 2nd year – 8 students in 2016–2017, 12 in 2017–2018, 13 in 2018–2019

Probability and Statistics – Télécom ParisTech, France _____ 2016 – 2019
Lecturer and instructor – Bachelor, 3rd year – 32 students in 2016–2017, 29 in 2017–2018, 28 in 2018–2019

Queueing Theory – Télécom ParisTech, France _____ 2017 – 2018
Lecturer – Master, 1st year – 39 students in 2017–2018

Network Performance Analysis – Télécom ParisTech, France _____ 2017 – 2018
Instructor – Master, 1st year – 20 students in 2017–2018

AlsaSup – École Alsacienne, France _____ 2017 – 2018
Lecturer and instructor – High School, 2nd year – 10 students in 2017–2018

Research visits

Visiting Researcher – IRIT, ENSEEIHT, France _____ Dec. 2018
Performance Analysis of Scheduling Algorithms for Computer Clusters with Distributed Processing.
Host: Urtzi Ayesta

Visiting Researcher – TU Eindhoven, The Netherlands _____ Feb. – April 2018
Performance Analysis of Load-Balancing Algorithms for Computer Clusters in the Many-Server Regime.
Host: Sem Borst

Awards and Prices

- First prize at the Télécom Paris Ph.D. Thesis Award for the year 2020.
- Best student paper award at the conference AlgoTel 2017.

Community involvement

- Co-organizer of the reading group [Stochastic Networks and Learning](#) in the *Stochastic Operations Research* group at TU Eindhoven since October 2020.
- Co-organizer of the [Young European Queueing Theorists \(YEQT\) XIV](#) workshop.
- TPC member at the [IFIP Performance 2020](#) and [AlgoTel 2021](#) conferences.
- Reviewer for the journals *Performance Evaluation*, *Queueing Systems*, and *Transactions on Networking*.

Publications and communications

Thesis

C. Comte. “Resource management in computer clusters: algorithm design and performance analysis”. PhD thesis. Institut Polytechnique de Paris, Sept. 24, 2019. URL: <https://pastel.archives-ouvertes.fr/tel-02413496>.

International journals with editorial board

T. Bonald and C. Comte. “The multi-source model for dimensioning data networks”. *Computer Networks. Traffic and Performance in the Big Data Era* 109 (Nov. 2016), pp. 225–233. URL: <http://www.sciencedirect.com/science/article/pii/S1389128616300913>.

T. Bonald, C. Comte, V. Shah, and G. de Veciana. “Poly-symmetry in processor-sharing systems”. *Queueing Systems* 86.3-4 (Aug. 2017), pp. 327–359. URL: <https://link.springer.com/article/10.1007/s11134-017-9525-2>.

T. Bonald and C. Comte. “Balanced fair resource sharing in computer clusters”. *Performance Evaluation* 116 (Nov. 2017), pp. 70–83. URL: <http://www.sciencedirect.com/science/article/pii/S0166531617300676>.

C. Comte and F. Mathieu. “Kleinberg’s grid unchained”. *Theoretical Computer Science* (Sept. 2018). URL: <http://www.sciencedirect.com/science/article/pii/S0304397518305966>.

C. Comte. “Dynamic load balancing with tokens”. *Computer Communications* 144 (Aug. 2019), pp. 76–88. URL: <http://www.sciencedirect.com/science/article/pii/S0140366419303895>.

International conferences and workshops with selection committee

T. Bonald, C. Comte, and F. Mathieu. “Performance of balanced fairness in resource pools: a recursive approach”. *Proceedings of the ACM on Measurement and Analysis of Computing Systems* 1.2 (Dec. 2017), p. 41. URL: <http://dl.acm.org/citation.cfm?id=3175501.3154500>.

Presented at the conference ACM SIGMETRICS 2018 (acceptance rate: 20%).

A. Bouillard, C. Comte, E. de Panafieu, and F. Mathieu. “Of kernels and queues: when network calculus meets analytic combinatorics”. *Proceedings of the 2018 30th International Teletraffic Congress (ITC 30)*. Vol. 02. Sept.

2018, pp. 49–54. URL: <https://ieeexplore.ieee.org/document/8493034>.

Presented at the International Workshop on Network Calculus and Applications (NetCal 2018).

C. Comte. “Dynamic load balancing with tokens”. *2018 IFIP Networking Conference (IFIP Networking) and Workshops*. IFIP Open Digital Library, May 2018, 343–351. URL: <https://ieeexplore.ieee.org/document/8697018>.

Presented at the conference IFIP Networking 2018 (acceptance rate: 24,5%).

French conferences and workshops with selection committee

T. Bonald, C. Comte, and F. Mathieu. “À la racine du parallélisme”. *AlgoTel 2017*. Quiberon, France, May 2017. URL: <https://hal.archives-ouvertes.fr/hal-01517150>.

Presented at the conference AlgoTel 2017 (acceptance rate: 64,1%).

C. Comte and F. Mathieu. “La grille de Kleinberg, l’univers et le reste”. *AlgoTel 2017*. Quiberon, France, May 2017. URL: <https://hal.archives-ouvertes.fr/hal-01517123>.

Presented at the conference AlgoTel 2017 (acceptance rate: 64,1%). **Best student paper award.**

T. Bonald, C. Comte, and F. Mathieu. “Un seul serveur vous manque, et tout est découplé !” *AlgoTel 2018*. Roscoff, France, May 2018. URL: <https://hal.archives-ouvertes.fr/hal-01773674>.

Presented at the conference AlgoTel 2018 (acceptance rate: 67,5%).

A. Bouillard, C. Comte, E. de Panafieu, and F. Mathieu. “0 = 0, c’est le truc du noyau ! Application aux files d’attente”. *AlgoTel 2019*. Saint Laurent de la Cabrerisse, France, June 2019. URL: <https://hal.archives-ouvertes.fr/hal-02118156>.

Presented at the conference AlgoTel 2019 (acceptance rate: 66,7%).

C. Comte. “Rien ne sert de prédire ; il faut servir ancien.” *AlgoTel 2019*. Saint Laurent de la Cabrerisse, France, June 2019. URL: <https://hal.archives-ouvertes.fr/hal-02118170>.

Presented at the conference AlgoTel 2019 (acceptance rate: 66,7%).

Poster

T. Bonald and C. Comte. “A round-robin scheduling for computer clusters with compatibility constraints”. RESCOM 2017 Summer School (June 2017). URL: <https://hal.inria.fr/hal-01558074>.

Preprints

C. Comte. “Stochastic non-bipartite matching models and order-independent loss queues”. *arXiv:2012.00851 [cs, math]* (Dec. 1, 2020). URL: <http://arxiv.org/abs/2012.00851>.

C. Comte and J.-P. Dorsman. “Pass-and-swap queues” (Sept. 25, 2020). URL: <http://arxiv.org/abs/2009.12299>. Submitted to *Queueing Systems*.