

Younes Ben Mazziane

University of Avignon

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Education & Professional Experience

Postdoc

UNIVERSITY OF AVIGNON

Avignon, France

Nov. 2024 - now

- **Supervisors:** Francesco De Pellegrini and Eitan Altman
- **Topic:** Bidding Strategies in Proportional Allocation Auctions

Ph.D. in Computer Science

CENTRE INRIA D'UNIVERSITÉ CÔTE D'AZUR

Sophia Antipolis, France

Oct. 2020 - Oct. 2024

- **Supervisors:** Sara Alouf and Giovanni Neglia
- **Title:** Probabilistic Analysis for Caching

M.Sc. in Computer Science (Ubiquitous Networking)

POLYTECH NICE SOPHIA UNIVERSITÉ CÔTE D'AZUR

Sophia Antipolis, France

2019-2020

- **Scholarship:** Labex UCN@Sophia

M.Sc. in Electrical and Computer Engineering

INSTITUT NATIONAL DES POSTES ET TÉLÉCOMMUNICATIONS

Rabat, Morocco

2017 - 2020

Classes Préparatoires aux Grandes Ecoles (MP)

LYCÉE OMAR IBN LKHATTAB

Meknes, Morocco

2015 - 2017

Research Overview

My research focuses on the theoretical analysis and performance evaluation of networking algorithms. The objective is to understand their behavior and tune their parameters to the characteristics of the workload. To this end, I use mathematical tools such as Markov processes, stochastic approximation, online optimization, and game theory.

Publications

[J4] **Younes Ben Mazziane**, Francescomaria Faticanti, Sara Alouf, Giovanni Neglia.

Efficient and Optimal No-Regret Caching under Partial Observation.

In **IEEE/ACM Transactions on Networking**, Volume 34, 2025.

[J3] **Younes Ben Mazziane**, Othmane Marfoq.

Universal and Tight Bounds on Counting Errors of Count-Min Sketch with Conservative Updates.

In **Proc. ACM Meas. Anal. Comput. Syst.**, Volume 9, 2025.

[J2] **Younes Ben Mazziane**, Sara Alouf, Giovanni Neglia, Daniel S. Menasché.

TTL Model for an LRU-based Similarity Caching Policy.

In **Computer Networks**, Volume 241, 2024.

[J1] **Younes Ben Mazziane**, Sara Alouf, Giovanni Neglia.

Analyzing Count Min Sketch with Conservative Updates.

In **Computer Networks**, Volume 217, 2022.

[C6] **Cleque-Marlain Mboulou-Moutoubi**, **Younes Ben Mazziane**, Francesco De Pellegrini, Eitan Altman.

Best-Response Learning in Budgeted α -Fair Kelly Mechanisms.

In **NETGCOOP 2025** — 12th International Conference on Networks, Games, Control and Optimization.

[C5] Younes Ben Mazziane, Othmane Marfoq.

Universal and Tight Bounds on Counting Errors of Count-Min Sketch with Conservative Updates.

ACM **SIGMETRICS** 2025 (same as [J3]) — International Conference on Measurement and Modeling of Computer Systems.

[C4] Younes Ben Mazziane, Cleque-Marlain Mboulou-Moutoubi, Francesco De Pellegrini, Eitan Altman.

Learning to Bid in Proportional Allocation Auctions with Budget Constraints.

IEEE WiOpt 2025 — International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks.

[C3] Younes Ben Mazziane, Francescomaria Faticanti, Giovanni Neglia, Sara Alouf.

No-Regret Caching with Noisy Request Estimates.

IEEE VCC 2023 — Virtual Conference on Communications.

[C2] Younes Ben Mazziane, Sara Alouf, Giovanni Neglia, Daniel S. Menasché.

Computing the Hit Rate of Similarity Caching.

IEEE GLOBECOM 2022 — Global Communications Conference.

[C1] Younes Ben Mazziane, Sara Alouf, Giovanni Neglia.

A Formal Analysis of the Count-Min Sketch with Conservative Updates.

In **IEEE INFOCOM** 2022 — Conference on Computer Communications Workshops (INFOCOM WKSHPS).

Oral Presentations

SIGMETRICS 2025. *Universal and Tight Bounds on Counting Errors of Count-Min Sketch with Conservative Updates.*

University of Avignon (LIA) Seminars 2024. *Probabilistic Analysis for Caching and Approximate Counting .*

VCC 2023. *No-Regret Caching with Noisy Request Estimates.*

GLOBECOM 2022. *Computing the Hit Rate of Similarity Caching.*

INFOCOM WORKSHOPS 2022. *A Formal Analysis of the Count-Min Sketch with Conservative Updates.*

Academic Service

Shadow PC member, SIGMETRICS 2026; reviewer for Performance Evaluation, Computer Communications, IEEE Networking Letters, and INFOCOM'26.

Teaching

2022 **Introduction à l'informatique par le Web**, (36h TP)

*Université
Côte d'Azur,
France.*

2023 **Base de Programmation en Python**, (26h TD)

*Polytech Nice
Sophia,
France*

2023 **Programmation Avancée en Python**, (48h)

*Polytech Nice
Sophia,
France*