

Kevin Vermeulen  
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CNRS researcher

## RESEARCH INTERESTS

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Networks and networks measurements. Building measurement systems for a better understanding of the Internet.

## EDUCATION

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2017 – 2020

**Doctorate** in Computer Science, “Improved Algorithms for capturing Internet maps”, supervised by Olivier Fourmaux and Timur Friedman, Sorbonne Université, Paris, France

2012 - 2016

**MSc** in Engineering, specialization in Computer Science, Institut Mines-Telecom Atlantique *grande école*, Brest, France

2010 - 2012

*Prépa maths sup' et maths spé* (non-degree **Bachelor's** level program), intensive advanced mathematics studies for entry into the *grandes écoles*, Lycée Henri IV, Paris, France

2009 - 2010

Baccalaureate (French national diploma), scientific option, with honors, Lycée Baudelaire, Roubaix, France

## EMPLOYMENT

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October 2021 – Current

CNRS Researcher (tenured position), LAAS-CNRS, Toulouse, France

October 2020 – October 2021

Postdoctoral researcher with professor Ethan Katz-Bassett, Columbia University, New York, NY, USA

Septembre 2017 – Septembre 2020

Research assistant with professor Timur Friedman, Sorbonne Université, Paris, France

July 2019 - September 2019

Visiting research scholar with professor Robert Beverly and Justin P. Rohrer, Naval Postgraduate School (NPS), Monterey, CA, USA

September 2016 - August 2017

Software database engineer, Murex (leading company in fintech), Paris, France

March 2016 – September 2016

Software database engineer intern, French Ministry of armies, Paris, France

## PUBLICATIONS

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Refereed conference publication

- **Internet Scale Reverse Traceroute**  
Kevin Vermeulen, Ege Gurmericililer, Italo Cunha, David Choffnes, Ethan Katz-Bassett.  
**ACM IMC 2022.**
- **The Best of Both Worlds: High Availability CDN Routing without compromising control**  
Jiangchen Zhu, Kevin Vermeulen, Italo Cunha, Ethan Katz-Bassett, Matt Calder.  
**ACM IMC 2022.**  
Awarded best short paper.
- **IP Geolocation Database Stability and Implications for Network Research**

Matthieu Gouel, **Kevin Vermeulen**, Olivier Fourmaux, Timur Friedman, Robert Beverly.  
**IEEE/IFIP TMA 2021.**

- **Alias Resolution Base on ICMP Rate Limiting**  
**Kevin Vermeulen**, Burim Ljuma, Vamsi Addanki, Olivier Fourmaux, Timur Friedman, Reza Rejaie.  
**PAM 2020.**
- **Diamond-Miner: Comprehensive Discovery of the Internet's Topology Diamonds**  
**Kevin Vermeulen**, Justin P. Rohrer, Robert Beverly, Olivier Fourmaux, Timur Friedman.  
**USENIX NSDI 2020.**
- **Multilevel MDA-Lite Paris Traceroute**  
**Kevin Vermeulen**, Stephen D. Strowes, Olivier Fourmaux, Timur Friedman.  
**ACM IMC 2018.**

#### Refereed journal publications

- **Zeph & Iris map the internet: A resilient reinforcement learning approach to distributed IP route tracing**  
Matthieu Gouel, **Kevin Vermeulen**, Maxime Mouchet, Justin P. Rohrer, Olivier Fourmaux, Timur Friedman.  
**ACM SIGCOMM CCR**, January 2022.

#### Refereed Workshop

- **Towards a ttraffic map of the Internet**  
Tom Koch, Weifan Jiang, Tao Luo, Petros Gigis, Yunfan Zhang, **Kevin Vermeulen**, Emile Aben, Matt Calder, Ethan Katz-Bassett, Lefteris Manassakis, Georgios Smaragdakis, Narseo Vallina-Rodriguez.  
**ACM HotNets 2021.**
- **Internet Measurements on EdgeNet Demo and extended abstract.**  
**Kevin Vermeulen**, Burim Ljuma, Olivier Fourmaux, Timur Friedman.  
**IEEE INFOCOM CNERT Workshop 2019.**

## STUDENTS

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### Ph.D student

- Omar Darwich (LAAS-CNRS): started in October 2022 (French MITT doctoral school grant)

## TEACHING

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### Fall 2022

- Internet measurements course, Master's degree program, lab creation and supervision

### Fall 2019

- Internet measurements course, Master's degree program, lab creation and supervision
- C++ programming, Master's degree program, course, lab creation and supervision

### Spring 2019

- Programming project, undergraduate program, lab supervision

### Fall 2018

- Internet measurements course, Master's degree program, lab creation and supervision

### Spring 2018

- Java programming, undergraduate program, lab supervision

### Fall 2017

- Internet measurements course, Master's degree program, lab creation and supervision

## SERVICE

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Technical Program Committee Member:

- ACM SIGMETRICS (2023)
- PAM (2022)

External Reviewer

- Transactions on Networking (2022)
- ACM IMC (2019)
- IEEE INFOCOM CNERT Workshop (2019)

Technical Program Committee Member (Shadow PC):

- ACM IMC (2018)
- IFIP/IEEE TMA (2018)

## LANGUAGES

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French: native speaker. English: fluent. German: working knowledge.

## ACTIVITIES AND INTERESTS

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Sports: club-level soccer player, former club-level basketball player

Music: former violinist and gold medalist in music theory, Music Conservatory of Roubaix, France