

## Jérémie Klinger

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Born 12/12/1996



## PhD

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**Laboratoire de Physique Théorique de la Matière Condensée**

**Paris, France**

*Random walks in confinement.*

2020–

PhD advisors : Raphaël Voituriez and Olivier Bénichou

Defense scheduled in 2023

**Keywords :** Stochastic processes, first passage time, visited territory, jump processes, preferential search and optimisation.

## Education

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**École Normale Supérieure / Institut Polytechnique de Paris**

**Paris, France**

*Master 2 ICFP, major Soft Matter and Biological Physics*

2019–2020

Highest Honors

**École Polytechnique**

**Palaiseau, France**

*Engineering Cycle, major Physics / Applied Mathematics*

2016–2019

Highest Honors

## Professional Experiences

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**M2 internship at LPTMC, Sorbonne Université**

**Paris, France**

*Random Walks - Number of sites visited before exiting a domain, Ref. [P1]*

April–

Advisors : Raphaël Voituriez, Olivier Bénichou

August 2020

**M1 internship at Boston University**

**Boston, USA**

*Laser Induced Cavitation*

April–August 2019

Advisor : James Bird

**Mailbutler - Internship**

**Berlin, Germany**

*Software development*

April–June 2018

## Teaching

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### Sorbonne Université, Paris, France

- **Physics M1** (2021-2022)

Numerical Methods

*Professor : Pascal Viot*

*Duration : 50h*

- **Physics L2** (2020-2021)

Numerical Methods for Physicists

*Professor : Pacôme Delva*

*Duration : 60h*

### Lycée Naval de Brest, Brest, France

- **Preparatory Classes for Engineering Schools** (2017)

TA in Math and Physics

*Duration : 4 month*

## Conferences

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### Talks

- Journées de Physique Statistique, Paris (March 2022)

*Joint statistics of space and time exploration of 1-d Random Walks*

### Posters

- Venice Meeting on Fluctuations in Small Complex Systems V, Venise, Italie (Octobre 2021)

*Joint statistics of space and time exploration of 1-d Random Walks*

- Journée de l'Ecole Doctorale de Physique d'Île de France, Sorbonne Université (June 2022)

*Splitting Probabilities of 1-dimensionnal Jump Processes*

- EURANDOM - Recent Trends in Spatial Stochastic Processes (October 2022)

*Splitting Probabilities of 1-dimensionnal Jump Processes*

## Seminars

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- Theory Seminar of Laboratoire Jean Perrin, Paris (May 2022)

*Splitting Probabilities of 1-dimensionnal Jump Processes*

- Young Seminar of Laboratoire de Physique Théorique de la Matière Condensée, Paris (November 2022)

*Bounded jump processes*

### PhD students seminar

- LPTMC PhD seminar, Paris (Decembre 2020)

*Classical Random Walks : Old but Gold*

## Publications

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- [P1] [J. Klinger](#), R. Voituriez, and O. Bénichou,  
Distribution of the span of one-dimensional confined random processes before hitting a target.  
*Phys. Rev. E* **103**, 032107 (2021).
- [P2] [J. Klinger](#), A. Barbier-Chebbah, R. Voituriez, and O. Bénichou,  
Joint statistics of space and time exploration of one-dimensional random walks.  
*Phys. Rev. E* **105**, 034116 (2021).
- [P3] [J. Klinger](#), R. Voituriez, and O. Bénichou,  
Splitting Probabilities of Symmetric Jump Processes.  
*Phys. Rev. L* **129**, 140603 (2022).
- [P4] [J. Klinger](#), R. Voituriez, and O. Bénichou,  
Leftward, rightward, and complete exit-time distributions of jump processes.  
*Phys. Rev. E* **107**, 054109 (2023).

## References

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**Olivier Bénichou**  
*LPTMC, Paris France*

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**Raphaël Voituriez**  
*LJP, Paris France*

[raphael.voituriez@gmail.com](mailto:raphael.voituriez@gmail.com)

**Satya Majumdar**  
*LPTMS, Orsay France*

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