### Jérémie Klinger

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Born 12/12/1996



### PhD

## Laboratoire de Physique Théorique de la Matière Condensée

Paris, France

2020 -

Random walks in confinement.

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

### École Normale Supérieure / Institut Polytechnique de Paris

Paris, France

2019-2020

Highest Honors

### École Polytechnique

Palaiseau, France

 $Engineering\ Cycle,\ major\ Physics\ /\ Applied\ Mathematics$ 

Master 2 ICFP, major Soft Matter and Biological Physics

**Highest Honors** 

2016–2019

## Experiences

## 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 Advisor: James Bird April-August 2019

Teaching

## Sorbonne Université, Paris, France

o Physics M1 (2021-2022)

Computational Methods Professor: Pascal Viot

Duration: 50h

o Physics L2 (2020-2021)

Numerical Methods for Physicists

Professor : Pacôme Delva

Duration: 60h

### Lycée Naval de Brest, Brest, France

o Preparatory Classes for Engineering Schools (2017)

TA in Math and Physics Duration: 4 month

### Conferences

### Talks

o Journées de Physique Statistique, Paris (March 2022) Joint statistics of space and time exploration of 1-d Random Walks

#### Posters

- $\circ$  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
- $\circ$  Journée de l'Ecole Doctorale de Physique d'Île de France, Sorbonne Université (June 2022)  $Splitting\ Probabilities\ of\ 1-dimensionnal\ Jump\ Processes$

### Seminars

o Theory Seminar of Laboratoire Jean Perrin, Paris (May 2022) Splitting Probabilities of 1-dimensionnal Jump Processes

#### PhD students seminar

o LPTMC PhD seminar, Paris (Decembre 2020) Classical Random Walks : Old but Gold

### **Publications**

- [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] <u>J. Klinger</u>, R. Voituriez, and O. Bénichou, Splitting Probabilities of Symmetric Jump Processes. Phys. Rev. L 129, 140603 (2022).

# References

Olivier Bénichou LPTMC, Paris France  ${\bf oliver benichou 2@gmail.com}$ 

Raphaël Voituriez LJP, Paris France

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Satya Majumdar LPTMS, Orsay France satya. majumdar@universite-paris-saclay. fr