# Tiphaine Viard

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| Personal information | born on 12/12/1990, french |
| Address | Riken AIP |
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*Current situation:* Postdoctoral researcher at Riken AIP, Tokyo.

## Publications

### Journals, peer-reviewed

[1] Tiphaine Viard, Raphaël Fournier-S'niehotta. Augmenting content-based rating prediction with link stream features. Computer Networks, 2018.

[2] Matthieu Latapy, Tiphaine Viard, Clémence Magnien. Stream graphs and link streams for the modelling of interactions over time. Social Networks Analysis and Mining, 2018.

[3] Tiphaine Viard, Clémence Magnien, Matthieu Latapy. Enumerating maximal cliques in link streams with durations. Information Processing Letters, 2018.

[4] Tiphaine Viard, Matthieu Latapy, Clémence Magnien. Computing maximal cliques in link streams. Theoretical Computer Science, 609, 245-252, 2016.

### International conferences and workshops

[5] Audrey Wilmet, Tiphaine Viard, Robin Lamarche-Perrin, Matthieu Latapy. Degree-based Outliers Detection within IP Traffic Modelled as a Link Stream. Traffic Measurement and Analysis Conference 2018 (TMA'18), Vienna, Austria.

[6] Tiphaine Viard, Raphaël Fournier-S'niehotta, Matthieu Latapy, Clémence Magnien. Discovering patterns of interest in IP traffic using cliques in bipartite link streams. CompleNet 2018, Boston, USA.

[7] Noé Gaumont, Tiphaine Viard, Raphaël Fournier-S'niehotta, Qinna Wang, Matthieu Latapy. Analysis of the temporal and structural features of threads in a mailing-list. CompleNet 2016, Dijon, France.

[8] Tiphaine Viard, Matthieu Latapy, Clémence Magnien. Revealing contact patterns among highschool students using maximal cliques in link streams. ASONAM'15/DyNo, Paris, France.

[9] Thibaud Arnoux, Tiphaine Viard, Matthieu Latapy, Clémence Magnien, Christophe Prieur. Maximal cliques in real-world interaction streams, poster at NetSci'15, Zaragossa, Spain.

[10] Tiphaine Viard, Matthieu Latapy. Identifying roles in an IP network with temporal and structural density. INFOCOM'14/NetSciCom, Toronto, Canada.

[11] Matthieu Latapy, Tiphaine Viard. Complex Networks and Link Streams for the Empirical Analysis of Large Software. PetriNets 2014, Tunis, Tunisia, *invited paper*.

### National conferences, peer-reviewed

[12] Matthieu Latapy, Tiphaine Viard, Clémence Magnien. Flots de liens et stream graphs pour la modélisation des interactions temporelles (short version of [2]), ALGOTEL 2018.

[13] Tiphaine Viard, Matthieu Latapy, Clémence Magnien. Calcul de cliques maximales dans les flots de liens. ALGOTEL 2015 (short version of [4])

### International conferences without proceedings, peer-reviewed

[14] Hindol Rakshit, Tiphaine Viard, Robin Lamarche-Perrin. Aggregation of link streams for multi-scale analysis. Conference on Complex Systems 2016, Amsterdam, Netherlands.

# Grants and Awards

1. *2018: (under review) Principal investigator of an Early-Career Scientist KAKENHI grant, 4.5M yens.*

2. 2017: Laureate of a 2-year postdoctoral grant of the Japanese Society for the Promotion of Science (JSPS) through overseas nomination.

3. 2017: Shortlisted for the *Complex Systems PhD award* organized by the Complex Systems Institute (ISC-PIF) (24 participants, 6 on shortlist)

4. 2016: Co-supervisor of the FLAMS project, accepted in the PEPS SISC (Sécurité Informatique et des Systèmes Cyber-physiques) 2016 program (4 partners, 5k€).

5. 2013-2016: Doctoral Grant from the French Ministry of Defense (Délégation Générale de l'Armement)

# Selected talks

1. "Stream Graphs and Links Streams for the Modelling of Interactions over Time", Handai IDS-JFLI workshop, Osaka, Japan.

2. "Modelling IP traffic as link streams for event detection". Journées Rescom 2016, Lille, France.

3. "Modelling interaction streams with link streams". Seminar given at National Institute of Informatics, Tokyo, Japan.

4. "Cliques in link streams". Journées ResCom 2015, Paris, France.

5. "A new density for link streams". Journées ResCom 2014, Lyon, France.

6. Multiple talks alongside a collaboration with THALES Group.

# Education

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| 2018 - | Post-doctoral researcher at RIKEN AIP. |
| 2016 - 2017 | Post-doctoral researcher at CEDRIC, CNAM. |
| 2013 - 2016 | PhD in Computer Science from Université Pierre et Marie Curie, entitled "Link streams for the modelling of interactions over time and application to the analysis of IP traffic". Supervised by Matthieu Latapy and Clémence Magnien. |
| 2015 - 2015 | 3-months research exchange at the *Fukuda Lab*, National Institute of Informatics, Tokyo, Japan. |
| 2013 - 2013 | Master's degree with honours from Université Pierre et Marie Curie, specialization in Networks. |
| 2008 - 2013 | Engineering diploma (master's level) from Efrei, specialization in Networks and Security. |
| 2008 - 2011 | Bachelor of Science in Mathematics and Computer Science from Université de Marne-la-Vallée, France. |

# Internship cosupervisions

| Year | Duration | Intern | Origin | Level | Co-advising | Topic |
|---|---|---|---|---|---|---|
| 2018 | 3 months | Anna Deza | University of Toronto | L2 | Takanori Maehara | Link stream features for recommender systems |
| 2016 | 6 months | Audrey Wilmet | ENS Lyon | M2 | Matthieu Latapy | Event detection in IP traffic modelled as a link stream |
| 2016 | 10 weeks | Mridul Seth | IIT Karaghpur | L3 | Robin Lamarche-Perrin | An Aggregation Algorithm for Multiscale Analysis of Dynamical Networks (practical point of view) |
| 2016 | 6 months | Hindol Rakshit | IIT Karaghpur | M2 | Robin Lamarche-Perrin | An Aggregation Algorithm for Multiscale Analysis of Dynamical Networks (theoretical point of view) |
| 2014 | 6 months | Thibaud Arnoux | ENS Cachan | M2 | Matthieu Latapy | An Algorithm for clique detection with varying $\Delta$ in link streams |
| 2013 | 3 months | Lucy Yu | MIT | L2 | Matthieu Latapy | Community detection in link streams: proof of concept on the Debian mailing-list archive |

# Scientific responsabilities

Conferences

1. Program Committee member of DyNo 2018, a workshop of ASONAM 2018, Barcelona, Spain.

2. Program Committee member of the Interdisciplinary Workshop on Recommender Systems (InWoRS) 2018, Paris, France.

3. Program Committee and Organizing Committee member of the Interdisciplinary Workshop on Recommender Systems (AISR) 2017, Paris, France.

4. Program Committee member of Complex Systems Conference 2016, Amsterdam, Netherlands.

5. Program Committee member of DyNo 2016, a workshop of ASONAM 2016, Davis, USA.

6. Elected council member of the Council of the Complex Systems Society (2014 - 2017)

7. Board member of eYRNCS, an e-workshop dedicated to young researchers of CS-DC 2015 conference.

8. Organizing Committee member of ASONAM 2015, Paris, France.

9. Organizing Committee member of MARAMI 2015, Paris, France.

10. Reviewer for 3 international journals and 4 international conferences: Transactions on Visualization and Computer Graphics, ComNet, Information Sciences, WWW'15, TRAC'15, NetSciCom'15, NetSciCom'16.

## Teaching and vulgarization

Teaching
All my teachings have been done at Université Paris Diderot.

| Year | Level | Course code | Description | Hours teached |
|------|-------|-------------|-------------|---------------|
| 2015 - 2016 | L1 | IO2 | Internet and Tools: HTML, CSS, PHP, MySQL and JavaScript | 48 |
| | L2 | PI4 | Computer Science Project | 16 |
| 2014 - 2015 | L2 | POO-IG | Object-oriented programming and graphical interfaces | 64 |
| 2013 - 2014 | L1 | IF1 | Introduction to Java programming | 64 |
| **Total** | | | | **192 hours** |

Other

1. 2013,2014 – Stand holder at la "Fête de la Science", an annual french event for the promotion of science.

2. 2015 – Talk at the CoFestival, an inclusive event to convey technical and scientific knowledge. Talk title: "How research works in computer science", with Noé Gaumont.

3. 2014 – Participation in a program welcoming a high school student for one week to show how a laboratory works.