Tiphaine Viard

Personal information	born on 12/12/1990, french
Address	Bureau B313, LIPN 99 avenue Jean-Baptiste Clément 93430 - Villetaneuse
Phone	+81 (0)80-8495-5602
Email	viard@lipn.univ-paris13.fr
Google Scholar	`https://scholar.google.com/citations?user=BlWlZtIAAAAJ`
Languages	French (mothertongue), English (C1 – IELTS 8/9), Japanese (intermediate)

Current situation and summary: Postdoctoral researcher at LIPN, Paris, in the A3 (*Apprentissage Automatique et Applications*, Machine Learning and Applications) team.

My publications are mainly into computer science venues, spanning **complex networks**, **theoretical computer science**, **applicative** and **machine learning**.

Publications

Journals, with peer-review

[1] Audrey Wilmet, Tiphaine Viard, Robin Lamarche-Perrin, Matthieu Latapy. Outlier Detection in IP Traffic Modelled as a Link Stream using the Stability of Degree Distributions over Time. Computer Networks, 2019.

[2] Tiphaine Viard, Raphaël Fournier-S'niehotta. Augmenting content-based rating prediction with link stream features. Computer Networks, 2019.

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

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

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

International conferences and workshops, with proceedings and peer-review

[6] Pimprenelle Parmentier, Tiphaine Viard, Benjamin Renoust, Jean-Fran cois Baffier. Introducing multilayer stream graphs and layer centralities. 8th International Conference on Complex Networks and their Applications, Lisbon, Portugal, 2019.

[7] Tiphaine Viard, Raphaël Fournier-S'niehotta. Encoding temporal and structural information in machine learning models for recommandation. ECML/LEG workshop, Würzburg, Germany, 2019. (short version of [2])

[8] 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.

[9] 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.

[10] 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.

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

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

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

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

National conferences

[15] Matthieu Latapy, Tiphaine Viard, Clémence Magnien. Les flots de liens comme généralisation des graphes et du traitement du signal.

[16] Matthieu Latapy, Tiphaine Viard, Clémence Magnien. Flots de liens et stream graphs pour la modélisation des interactions temporelles (short version of [3])

[17] Tiphaine Viard, Matthieu Latapy, Clémence Magnien. Calcul de cliques maximales dans les flots de liens. ALGOTEL 2015 (short version of [5])

Book chapters

[18] Matthieu Latapy, Clémence Magnien, Tiphaine Viard. Weighted, Bipartite, or Directed Stream Graphs for the Modeling of Temporal Networks. 2019.

Other venues (posters, etc.), without peer-review

[19] Tiphaine Viard, Raphaël Fournier-S'niehotta, Takanori Maehara. Link stream features for content recommendation. AIP-PAIR workshop, Taiwan, 2019.

[20] Tiphaine Viard, Jean-François Baffier, Takanori Maehara. Maximum flows and minimum cuts in stream graphs. Poster at WinterFesta, Tokyo, Japan, 2019.

In preparation

[21] Tiphaine Viard, Thomas McLachlan, Hamidreza Ghader, Satoshi Sekine. Graphs for the fine-grained entity classification of Wikipedia.

Grants and Awards

1. 2017: Laureate of a 2-year postdoctoral grant of the Japanese Society for the Promotion of Science (JSPS) through overseas nomination.
2. 2017: Shortlisted for the *Complex Systems PhD award* organized by the Complex Systems Institute (ISC-PIF) (24 participants, 6 on shortlist)
3. 2016: Co-supervisor of the FLAMS project, accepted in the PEPS SISC (Sécurité Informatique et des Systèmes Cyber-physiques) 2016 program (4 partners, 5k€).
4. 2013-2016: Doctoral Grant from the French Ministry of Defense (Délégation Générale de l'Armement)

Selected talks

1. Hindol Rakshit, Tiphaine Viard, Robin Lamarche-Perrin. Aggregation of link streams for multiscale analysis. Conference on Complex Systems 2016, Amsterdam, Netherlands.
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

2019 -	Post-doctoral researcher at LIPN, Paris
2018 - 2019	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
2019	6 months	Mirwaisse Djanbaz	Université Paris Sud	M2	Raphaël Fournier-S'niehotta	Graphs and link streams for recommender systems
2019	3 months	Tu Anh Nguyen	University of Hanoi	L3	Satoshi Sekine	Community detection in link streams
2019	4 months	Pimprenelle Parmentier	École Polytechnique	M1	Jean-François Baffier, Benjamin Renoust	A formalism for multilayer stream graphs
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 Δ 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 4 international journals and 4 international conferences: Applied Network Science, 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 and Efrei Engineering school.

Year	Course name	Level	Size	Load	Goal
2016–2017	*Data Structures*	L2	1 TD group, 1 TP group (30 students)	20h TD, 7h TP	Learn essential algorithms and data structures in computer science.
2015–2016	*Internet and Object*	L1	1 group TP (23 students)	43h TD, 14h TP	Learn the fundamentals of Web development.
	Computer Science Project	L2	18 students	4h TD, 16h TP	Students projects' supervision, in groups of 4.
2014–2015	*Object-oriented programming and graphical interfaces*	L2	2 groups (30 students)	64h TD/TP	Introduction to object-oriented programming and graphical interfaces, in Java.
2013–2014	*Introduction to programming*	L1	2 groups (45 students)	64h TP	Introduction to programming in Java.

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.