

PERSONAL INFORMATION	Date of birth May 2, 1982 Place of birth Patras, Greece Address CMLA – ENS Cachan, Universite Paris-Saclay 61 Avenue du Président Wilson, 94235 Cachan cedex, France	Resources / Contact W. kalogeratos.com T. +33-147-4059-08 E. kalogeratos@cmla.ens-cachan.fr argyriskalogeratos@gmail.com
CURRENT POSITION	Post-doctoral researcher , member of the Machine Learning and Massive Data Analysis (MLMDA) group at Center of Applied Mathematics– ENS Cachan, University Paris Saclay, France . Principal investigator on the <i>Machine Learning on Networks</i> theme. [Sept. 2013 – <i>now</i>]	
RESEARCH INTERESTS	Machine Learning • Data Mining • Networks Analysis • Complex Systems	
SPECIAL AREAS OF INTEREST	<ul style="list-style-type: none"> ■ Learning methods for high-dimensional and complex data ■ Data clustering and cluster analysis ■ Multimedia data semantics and representation (text, image, video) ■ Social network analysis and mining – Diffusion Networks ■ Diffusion process analysis and control (epidemics, information propagation) 	
EDUCATION	Dept. Computer Science*, University of Ioannina, Greece * recently renamed to <i>Computer Science and Engineering</i>	
	<ul style="list-style-type: none"> ■ Ph.D. Computer Science [Nov. 2007 – Apr. 2013] Degree grade: Excellent, 10.0 / 10.0 Thesis: <i>Knowledge extraction methods for document collections</i> (Supvr. A. Likas) ■ M.Sc. Computer Science [Nov. 2005 – Oct. 2007] Degree grade: 9.36 / 10.0 – Thesis grade: 10.0 / 10.0 Thesis: <i>Methods for clustering documents</i> (Supvr. A. Likas) ■ B.Sc. Computer Science [Sep. 2001 – Oct. 2005] Degree Grade: 7.5 / 10.0 – Thesis grade: 10.0 / 10.0 Thesis: <i>Clustering web documents based on a graph model</i> (Supvr. A. Likas) 	
SCIENTIFIC BACKGROUND	<i>Post-graduate Courses</i> <ul style="list-style-type: none"> ■ <i>Machine Learning, Data Mining, Bioinformatics, Computer Vision, Optimization, Computer Systems (OS), Compilers, Information Systems – Middleware and Web Services, Computational Geometry</i>, most of which had also large reading and programming/development project assignments. 	
JOURNAL PUBLICATIONS	[1] K. Scaman, A. Kalogeratos , and N. Vayatis. Suppressing Epidemics in Networks using Priority-Planning, <i>IEEE Trans. on Network Science and Engineering</i> , vol. 3, no. 4, pp. 271–285, 2016. [2] A. Kalogeratos and A. Likas, Text document clustering using global term context vectors, <i>Knowledge and Information Systems</i> , vol. 31, no. 3, pp. 455–474, 2012. [3] A. Kalogeratos and A. Likas, Document clustering using synthetic cluster prototypes, <i>Data and Knowledge Engineering</i> , vol. 70, no. 3, pp. 284–306, 2011.	

CONFERENCE
PUBLICATIONS

- [4] **A. Kalogeratos**, K. Scaman, L. Corinzia, and N. Vayatis, Partial network immunization in Continuous-Time Information Cascades, (extended abstract) *Proc. Intern. Conf. on Complex Networks and Their Applications*, 2017.
- [5] R. Lemonnier, K. Scaman, and **A. Kalogeratos**. Multivariate Hawkes Processes for Large-scale Inference, *Proc. AAAI Conf. on Artificial Intelligence*, 2017.
- [6] **A. Kalogeratos**, P. Zagorisios, and A. Likas. Improving Text Stream Clustering using Term Burstiness and Co-burstiness, *Proc. SETN Hellenic Conf. on Artificial Intelligence*, 2016.
- [7] K. Scaman, **A. Kalogeratos**, N. Vayatis, A Greedy Approach for Dynamic Control of Diffusion Processes in Networks, *Proc. IEEE Intern. Conf. on Tools with Artificial Intelligence*, pp. 652–659, 2015.
- [8] **A. Kalogeratos** and A. Likas, Dip-means: an incremental clustering method for estimating the number of clusters, *Proc. NIPS Conf. on Neural Information Processing Systems*, 2012.
- [9] V. Chasanis, **A. Kalogeratos**, and A. Likas, Movie segmentation into scenes and chapters using locally weighted bag of visual words, *Proc. ACM ICIV Intern. Conf. on Image and Video Retrieval*, pp. 8–10, 2009.
- [10] **A. Kalogeratos** and A. Likas, A significance-based graph model for clustering web documents, *Proc. SETN Hellenic Conf. on Artificial Intelligence*, LNAI 3955, pp. 516–519, Springer-Verlag, 2006.

TECHNICAL
REPORTS
(UNDER REVIEW)

- [11] B. Les Bars, **A. Kalogeratos**, A Probabilistic Approach to Node-level Anomaly Detection in Communication Networks, (submitted), July 2018.
- [12] M. Fekom, **A. Kalogeratos**, N. Vayatis, The Multi-Round Sequential Selection Problem, (submitted), July 2018.
- [13] K. Scaman, **A. Kalogeratos**, L. Corinzia, and N. Vayatis, A spectral method for activity shaping in Continuous-Time Information Cascades, arXiv:1709.05231, September 2017.

BOOK
CHAPTERS

- [14] **A. Kalogeratos**, K. Scaman, L. Corinzia, and N. Vayatis, Information diffusion and rumor spreading, *Cooperative and Graph Signal Processing*, P.M. Djuric and C. Richard (Eds.), Elsevier, 2018.
- [15] **A. Kalogeratos** and K. Scaman, Algorithmes efficaces pour contenir des processus de contagion sur des réseaux, *Big Data et politiques publiques dans les transports*, A. de Palma and S. Dantan (Eds.), ECONOMICA, 2017.
- [16] **A. Kalogeratos**, V. Chasanis, G. Rakocevic, A. Likas, Z. Babovic, and M. Novakovic, Mining Clinical Data, *Computational Medicine in Data Mining and Modeling*, in G. Rakocevic et al. (Eds.), pp. 1–34, 2013.

CONFERENCE
TALKS &
WORKSHOP
PAPERS
(NO PROC.)

- [17] B. Le Bars and **A. Kalogeratos**. Node-level Anomaly Detection in Communication Networks, 3rd Graph Signal Processing Workshop (GSP), 2018.
- [18] M. Fekom and **A. Kalogeratos**, and N. Vayatis. Optimizing group selection over multiple sequential selection rounds, Workshop on Multi-Armed Bandits and Learning Algorithms, 2018.
- [19] **A. Kalogeratos**, S. Sarao, K. Scaman, and N. Vayatis, Dynamic control of social diffusions using extensions of the SIS model, *full oral presentation at CCS Conf. on Complex Systems*, (talk on submitted abstract), 2016.
- [20] **A. Kalogeratos**, K. Scaman, and N. Vayatis, Learning to Suppress SIS Epidemics in Networks, *NIPS 2015 Networks in the Social and Information Sciences*, 2015.
- [21] K. Scaman, **A. Kalogeratos**, N. Vayatis, Dynamic Treatment Allocation for Epidemic Control in Arbitrary Networks, *ACM Websearch and Data Mining (WSDM) – Diffusion in Networks and Cascade Analytics Workshop (DiffNet)*, 2014.

- INVITED TALKS
- *Optimizing group selection over multiple sequential selection rounds* at the French German summer school on Transfer Learning. [6/6/2018]
 - *Epidemics, Competition and Resource Management*, at a Working Group on ML and Big Data of the French Ministry of Social Affairs & Health. [25.1.2017]
 - *Dynamic suppression of epidemics on networks*, at the Complex Networks research group of LIP6, Paris 6 (Jussieu Campus). [13.6.2016]
 - *Epidemics in the new socio-economic era: challenges and applications*, at the Dept. of Computer Science and Engineering, University of Ioannina, Greece. [25.5.2016]
 - *Suppressing epidemics on arbitrary networks using treatment resources of limited efficiency*, at INRA Research Center, Jouy-en-Josas, Paris area. [4.3.2016]
 - Summit Talk – *Efficient algorithms for the suppression of diffusion processes on networks with application in epidemiology and marketing*, at the “Big data and public policies for the transportation” summit organized by the French Ministry of Ecology / Durable Development / Energy, ENS Cachan, and PSE of Paris. [15.10.2015]
- SUPERVISION
- CMLA, ENS Cachan, University Paris Saclay, France** [2013 – now]
- Co-supervision of **1 Ph.D. thesis** (Kevin Scaman, *Analysis and control of diffusion processes in networks*, 2013 – 2016, **2 ongoing Ph.D. theses** (Mathilde Fekom and Batiste Les Bars), **7 Master (M2) theses**, **6 License (L3) theses** of 11 students.
- Dept. Computer Science, University of Ioannina, Greece** [2009 – 2012]
- Co-supervision of **1 M.Sc. thesis**, **4 Undergraduate theses**.
- PROFESSIONAL RESEARCH EXPERIENCE
- *MOdeling propagation phenomena in RAIlway NEtworks*. MORANE project is funded by the SNCF and is a collaboration between MLMDA group and SNCF Innovation and Research department. Role: Principal investigator. [10.2016 – 3.2018]
 - *CITEPH project* was a collaboration between two labs of CMLA and Schlumberger and was for data mining on geological data. Role: Coordinator for the work at MLMDA. [9.2016 – 3.2017]
 - *Machine Learning for Large Social Graphs* in the frame of the SODATECH project funded by the French Government within the program “*Investments for the Future – Big Data*”. Role: Principal investigator for the work at MLMDA. [9.2013 – 10.2016]
 - *Signal processing and mining for water quality analysis*, in a consulting project to Suez Environment. Role: Researcher. [4 months in 2015]
 - *Data Mining and Decision Support Tasks related to the Cardiovascular Disease*, in the framework of the E.U. research program ARTreat (www.artreat.org) funded by FP7-224297 – Large-scale Integrating Project (IP). Role: Researcher-consultant. [10 months in 2010 – 2012]
 - *Cheminformatics project: Rapid automatic identification of natural products in crude extracts based on NMR data* (collaboration between Dept. Computer Science and Dept. of Chemistry, University of Ioannina). [2011 – 2014]
- TEACHING EXPERIENCE
- Teaching Assistant at MVA Master course (M2): *Unsupervised Learning: From Big Data to low-dimensional representations* (Rene Vidal). [2017 – 2018]
 - Research instructor - Creation and supervision of 4 independent 10-week research projects (7 students) as part of the MVA Master course (80% of final grade): *Graphs in Machine Learning* (Michal Valko). [fall semesters of 2015-2017]
 - Laboratory Instructor of undergraduate courses at the Dept. of Computer Technology and Telecommunications, **TEI of Epirus, Greece**. 4 courses: *Data Mining* (2 sem.s), *Computational Intelligence* (2 sem.s), *Computer Programming I* (1 sem.), *Computer Programming II* (1 sem.). [2009 – 2010 & 2011 – 2012]

- Teaching Assistant of undergraduate courses at the Dept. Computer Science, University of Ioannina, Greece. 4 courses: *Artificial Intelligence* (4 sem.s), *Computational Intelligence* (3 sem.s), *Basic Electronics* (1 sem.), *Computer Architecture* (1 sem.). [2009 – 2012]

ACADEMIC
SERVICE

Ph.D. Jury Member

- Thesis of Kevin Scaman, CMLA, ENS Cachan, Oct. 2016.

Service in the MLMDA group

- Sharing responsibilities in organizing the seminar talks of the research group (internal and external speakers).
- Supporting the dissemination of research results of the group through its website (implementation and maintenance).

Referee Service

- Journals: Pattern Recognition, Journal of Machine Learning Research (JMLR), IEEE Transactions on Knowledge and Data Engineering (TKDE), Journal of Pattern Recognition Research (JPRR), IEEE Transactions on Signal Processing (TSP), Bioinformatics, EURASIP Journal on Advances in Signal Processing, Information Sciences, Scientific Research and Essays.
- Conferences: International Conference on Machine Learning (ICML), International Conference on Artificial Neural Networks (ICANN), Hellenic Conference on Artificial Intelligence (SETN), International Symposium on Neural Networks (ISNN), International Workshop on Data Science for Social Media and Risk (SOMERIS – ICDM'16).
- Book chapters: one chapter of the book *Cooperative and Graph Signal Processing*, P.M. Djuric and C. Richard (Eds.), Elsevier, 2018.

Evaluation of Research Proposals

- The French National Research Agency (ANR) on the “Data, Knowledge, Big Data, Multimedia Content, Artificial Intelligence” research theme (2018).

TECHNICAL
SKILLS

- Excellent model/algorithmic design and programming skills.
- Software development (indicative): C/C++, Java, Python, Matlab, PHP, SQL, OpenGL.

LANGUAGES

- Greek – native language
- English – proficient level
- French – elementary level