

# Alberto Lumbreras | CV

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## Personal information

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**Date and place of birth:** April 4th 1981, Barcelona

**Nationality:** Spanish

## Education

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### PhD, Computer Science

**Feb 2013–2016**

*Université de Lyon 2*

*Lyon*

Industrial PhD (CIFRE) in Technicolor R&D (Rennes).

Supervisors :

Bertrand Jouve (CNRS, U. Toulouse 2. Previously : U. Lyon 2),

Julien Velcin (Université Lyon 2, ERIC Lab),

Marie Guégan (Technicolor)

### Master, Artificial Intelligence

**2009–2012**

*Universitat Politècnica de Catalunya*

*Barcelona*

(2-year programme. Score : 7,69/10)

### BSc, Telecommunication Engineering

**1999–2005**

*Universitat Politècnica de Catalunya*

*Barcelona*

(5-year programme)

## Summer Schools.....

### Network analysis and applications

**August 2014**

<http://www.quantware.ups-tlse.fr/ecoleluchon2014/>

*Luchon*

### Machine Learning Summer School

**May 2014**

<http://mlss2014.hiit.fi/>

*Reykjavik*

### Structure and dynamics of complex networks

**April 2014**

<http://leshouches2014.weebly.com/>

*Les Houches*

### Lisbon Machine Learning School

**July 2011**

<http://lxmls.it.pt/2011/Home.html>

*Lisbon*

## Research experience (2004-2012)

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### Research Engineer

2004–2010

*Telefónica Investigación y Desarrollo (Telefónica Research)*

*Barcelona*

I worked for 6 years in the research branch of Telefónica (multinational broadband and telecommunications provider) as a Research Engineer. As such, I have been involved in European research projects (founded by the FP7 program) as well as in internal research projects, mainly for the Internet and the Mobile divisions of the company. My tasks ranged from the design and implementation of algorithms to the writing of project proposals and coordination of small research teams in exploratory areas.

Some of these projects are :

- **Expert Systems (2004–2006)** : design and implementation of an expert system that monitors and automatically corrects failures in a tier center of a European grid computing network for scientific research, coordinated by the CERN (Conseil Européen pour la Recherche Nucléaire)
- **Peer-to-Peer Networks (2006–2007)** : design and implementation of P2P (bluetooth and IPTV) content distribution, prototypes development and technical analysis of feasibility for its integration in the Telefónica platform.
- **Movisphere (corporate spin-off) (2008–2009)** : as a part of a two-people team, I moved to Vancouver for three months to create a spin-off founded by Telefónica in collaboration with the Center for Digital Media. Movisphere was a multi-platform (mobile, TV, PC) service of *casual games*. The project received the following awards :
  - Best New Business Opportunity at Telefónica's Second Annual Research Fair.  
<http://thecdm.ca/projects/archives/movisphere>
  - Honoree in the Integrated Mobile Project category at the 13th Webby Awards.  
<http://tinyurl.com/webbyawards-movisphere>
- **Recommender Systems & User Profiling (2009–2010)** : I worked in a platform to integrate all recommendations and user profiling services in Telefónica.

### Research Engineer

2010–2012

*Universitat Politècnica de Catalunya*

*Barcelona*

*Laboratory for Relational Algorithmics, Complexity and Learning.*

I developed and implemented algorithms and system prototypes for data mining, sentiment analysis and recommender systems. I also helped in the organization of workshops and conferences hosted by our research lab. I was also involved in technology transfer projects to help industrial partners in adapting the algorithms developed in the lab. The following are two of the main projects :

- **Sentiment Analysis and Stream Mining** : I adapted the popular MOA software (stream data mining) to be used with particular sentiment analysis methods in social networks streams. I worked together with the researchers at the University of Waikato (New Zealand) who created MOA.
- **Recommender Systems** : I designed and implemented a prototype of a content recommender system for social networks.

### Research Engineer – Thèse CIFRE

2013–2016

*Technicolor R&I*

*Rennes*

In the context of a CIFRE thesis (industrial thesis) I worked as a Research Engineer in the research division of Technicolor (multinational specialized in digital video and image technologies). My thesis was part of a project that aimed to analyze online movie-related forums.

## Teaching experience

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Academic supervision.....

### Master's Thesis co-Supervisor

2015

*Université de Lyon 2 – Technicolor*

*Lyon*

*Master in Data Mining and Knowledge Management.*

Co-supervised the Master's Thesis of Zara Alaverdyan at Technicolor, entitled "Language-based

analysis in online forums" (supervisor : Julien Velcin).

<b>Teaching</b> .....	
<b>Vacataire</b> <i>Université Paul Sabatier</i> Systèmes d'information et applications Web (TP, 24h) Web applications with PHP and MySQL.	<b>March-April-May 2016</b> <i>Toulouse</i>
<b>Vacataire</b> <i>IUT Rangueil</i> UML design with Modelio (TP, 18h)	<b>March-April-May 2016</b> <i>Toulouse</i>
<b>Teacher</b> <i>Epsilon Formación, <a href="http://www.epsilon-formacion.com/">http://www.epsilon-formacion.com/</a></i> Elaboration and teaching of courses for first years students of Telecommunication Engineering (TD, 40h)	<b>2000</b> <i>Barcelona</i>

## Master's Thesis (2012)

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**title:** *Towards Trust-Aware Recommender Systems*

**supervisor:** Ricard Gavalda

## PhD Thesis (2013-2016)

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**title:** *Automatic Role Detection in Online Forums.*

**supervisors:** Bertrand Jouve (CNRS, U. Toulouse 2. Previously : U. Lyon 2),  
Julien Velcin (Université Lyon 2, ERIC Lab), Marie Guégan (Technicolor)

## Languages

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<b>French:</b> fluent	<b>Spanish:</b> Native
<b>English:</b> fluent (TOEFL iBT : 104)	<b>Catalan:</b> Native

## Publications

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- Books : 1
- International workshops : 2
- National conferences : 1
- Patents : 1
- Journals : 1

**Journals**.....  
Lumbreras A., Velcin J., Guégan M., and Jouve B. Non-parametric clustering over user features and latent behavioral functions with dual-view mixture models. *Computational Statistics*, 2016.

**Books**.....  
Toret J. (coord), Aguilera M., Aragón P., Calleja A. Lumbreras A., and Marín Ó. *Tecnopolítica y 15M : la potencia de las multitudes conectadas. Un estudio sobre la gestación y explosión del 15M*. Sociedad Red. Universitat Oberta de Catalunya Ed., 2015. Preprint edition : <http://tecnopolitica.net/sites/default/files/1878-5799-3-PB%20%282%29.pdf>.

## Conferences and Workshops (international).....

Lumbreras A., Lanagan J., Jouve B., and Velcin J. An insight into the analysis of roles in imdb. In *Complexity in social systems : from data to models*, 2013. [http://complexity-in-social-systems.u-cergy.fr/?page\\_id=18](http://complexity-in-social-systems.u-cergy.fr/?page_id=18) (Cergy).

Lumbreras A. and Gavalda R. Applying trust metrics based on user interactions to recommendation in social networks. In *International Conference on Advances in Social Networks Analysis and Mining - ASONAM*, pages 1191–1196, 2012. [First International Workshop on Social Knowledge Discovery and Utilization (SKDU 2012)] <http://dl.acm.org/citation.cfm?id=2456888>.

## Conferences and Workshops (national).....

Lumbreras A., Lanagan J., Velcin J., and Jouve B. Analyse des rôles dans les communautés virtuelles : définitions et premières expérimentations sur IMDb. In *Modèles et Analyses Réseau : Approches Mathématiques et Informatiques (MARAMI)*, pages 1–12, 2013. [http://lipn.univ-paris13.fr/marami2013/MARAMI13/Programme\\_2.html](http://lipn.univ-paris13.fr/marami2013/MARAMI13/Programme_2.html).

## Seminars and Posters.....

Lumbreras A. Dynamiques dans les forums de discussions online. In *Modélisation des Réseaux en Histoire (MOREHIST)*, 2015. <http://preview.tinyurl.com/morehist> [Workshop, Université Toulouse 2].

Lumbreras A. Methods and systems for clustering-based recommendations. <https://reerca.upc.edu/larca/en/news/seminar-by-alberto-lumbreras>, 2015. [Seminar at LARCA Lab, Universitat Politècnica de Catalunya, Barcelona].

Lumbreras A. Roles and dynamics of online conversations. <https://www.irit.fr/-Seminaires-IRIT-UPS,902-?evtid=238&evtttype=seminaire&lang=fr>, 2015. [Seminar at IRT, Toulouse].

Lumbreras A. Dynamique des discussions dans les forums. <https://iscpif.fr/event/journee-interdisciplinaire-modelisation-des-interactions-temporelles/>, 2016. [Seminar at Institut des Systèmes Complexes de Paris].

Lumbreras A. An introduction to markov chain monte carlo. [https://github.com/alumbreras/MCMC\\_intro](https://github.com/alumbreras/MCMC_intro), 2016. [Seminar at Technicolor, Rennes].

Lumbreras A., Guégan M., Julien J., and Jouve B. Clustering users features and latent behavioral functions. In *StatLearn*, 2015. <http://statlearn.sfds.asso.fr/statlearn15/> [Poster, Grenoble].

Toret J., Aguilera M., Lumbreras A., Aragón P., Linares J., and Marín Ó. Gestation of the 15m, devices and augmented events, network system, emergence and self-organization. evolution of the network system. In *Digital culture, networks and distributed politics in the age of the Internet. From the Global Spring to the Net Democracy. Communication and Civil Society programme of the IN3 in Barcelona, Spain, in October 24-25*, 2012. <http://ictlogy.net/review/?p=3992>, Barcelona.

## Patents

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Guégan M., Jouve B. Lumbreras A., and Velcin J. Methods and systems for clustering-based recommendations, July 2015. [EU Filled Patent, number 15306168.4].

## Conferences and workshops organization

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### Dynamic Networks workshop

2016

(Institut de Systèmes Complexes de Toulouse)

Toulouse

[http://isc-t.fr/language/fr/evenements/?event\\_id1=5](http://isc-t.fr/language/fr/evenements/?event_id1=5)

Hotel and trip reservation for invited speakers; communications (mailing, website announcements), agenda.

### ECML-PKDD

2010

<http://www.ecmlpkdd2010.org/index1f1e.html>

Barcelona

Local logistics, reception and assistance for speakers during the conference.

## References

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### References in academy.....

- Bertrand Jouve (CNRS, U. Toulouse 2) jouve@univ-tlse2.fr
- Julien Velcin (U. Lyon 2) velcin@univ-lyon2.fr
- Marie Guégan (Technicolor) marie.guegan@technicolor.com
- Ricard Gavaldà (U. Politècnica de Catalunya) gavalda@cs.upc.edu
- Albert Bifet (Télécom ParisTech) albert@albertbifet.com

### References in industry (Telefónica R&D).....

- Enrique Garcia Illera (Direct Supervisor) egi@tid.es
- Carlos Domingo (Lab Director) <https://about.me/carlosdomingo>
- Xavier Amatriain (co-worker, Senior Researcher) <http://xavier.amatriain.net/>