

MEHDI MOUSSAÏD
29 years old - Nationality: French

Post-doctoral Fellow

*Research Center on Animal Cognition
University of Toulouse*

Education

2010-2011 UNIVERSITY OF TOULOUSE

Post-doctoral Fellow

2007-2010 UNIVERSITY OF TOULOUSE & ETH ZÜRICH

PhD degree in Ethology : "Experimental study and modeling of human crowd behaviour"

2006 UNIVERSITY OF TOULOUSE

Master degree in Behavioural and Cognitive Science

2001-2004 POLYTECHNIC SCHOOL OF NANTES

Engineer degree in Computer Science

Relevant work experience

2009-2010 Teaching assistant: "Self-organization in biological systems", University of Toulouse

2008 Teaching assistant: "Matlab programming for agent-based simulations", ETH Zürich

2008 Consultant on human crowd behaviour in urban environment, ETH Zürich

2006 Visiting Fellow, Dresden University of Technology

2005 Visiting Fellow, Free University of Brussels

Research Interests and skills

Research interests: Study of social interactions and collective behaviours in human and animal groups. This includes experimental approaches, mathematical modeling and computer simulations.

Technical skills: MacOS 9 & X, Linux, Windows; Data analysis with R and Matlab; Edition of scientific documents with Latex ; Programming in Java, C and C++; Webmastering.

Language: French, Arabic and English, rudiments in German.

Research Publications

- 2011 "Inter-individual variability drive traffic instabilities in human crowd",
In preparation.
- 2011 "How simple rules determine pedestrian behavior and crowd disasters",
Proceedings of National Academy of Science, in press.
- 2010 "Experimental study and modeling of human crowd behaviour," Doctoral Dissertation, Uni-
versity of Toulouse, July, 2010.
- 2010 "The walking behaviour of pedestrian social groups and its impact on crowd dynamics",
PLoS ONE, 5(4).
- 2009 "Experimental study of the behavioural mechanisms underlying self-organization in human
crowds"
Proceedings of The Royal Society: Biological Science, 276:2755-2762.
- 2009 "Collective information processing and pattern formation in swarms, flocks and crowds"
Topics in Cognitive Science, 1(3):469-497.
- 2009 "An individual-based model of collective attention"
Proceedings of the European Conference on Complex Systems 2009.
- 2009 "Analytical calculation of critical perturbation amplitudes and critical densities by non-linear
stability analysis of a simple traffic flow model"
The European Physical Journal B, 69(4), 571-581.

Selected International Conferences

- 2010 AAAS Annual Meeting, San Diego
- 2009 European Conference on Complex Systems, Warwick
- 2007 Workshop on calibration of microscopic pedestrian movement simulations, Vienna

Other

Member of the French Society for the Study of Animal Behaviour (SFECA).

Various **Media Coverage** in ScienceNOW, Spiegel (Online), Times (Online), ZDF and various other TV channels (M6, Rai.TV).

Reviewer for Journal of Geographical Information Science, Building and Environment, Operations Research.