

# Curriculum Vitae

## MOHAMED WAHBI

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### EDUCATION

- Ph.D. in Computer Science (2012)** University of Montpellier, France & Mohammed V University in Rabat, Morocco.  
*Dissertation:* Algorithms and Ordering Heuristics for Distributed Constraint Satisfaction Problems.  
*Supervisors:* Christian Bessiere & El Houssine Bouyakhf.  
*Track:* Artificial Intelligence.
- Master of Science (2008)** Mohammed V University in Rabat, Morocco (*Valedictorian*).  
*Thesis:* Privacy in Distributed Constraints Satisfaction Problems.  
*Supervisors:* El Houssine Bouyakhf & Redouane Ezzahir.  
*Tracks:* Computer Science, Telecommunications & Image Processing.
- Bachelor of Science (2006)** University Ibn Zohr, Agadir, Morocco.  
Faculty of Science, Agadir  
*Tracks:* Mathematics & Computer Science.

### EMPLOYMENT

- 2013-present** Senior Post-doctoral researcher at Insight Centre for Data Analytics, University College Cork, Ireland.
- 2012-2013** Assistant Professor at École des Mines de Nantes, France.
- 2011-2012** Assistant Professor (ATER) at University of Montpellier.
- 2008-2012** Temporary Lecturer at École Polytechnique Universitaire de Montpellier (*Polytech'Montpellier*), Département ERII (Electronique Robotique et Informatique Industrielle), University of Montpellier.
- 2009-2012** Ph.D. Student in Computer Science at University of Montpellier, France and Mohammed V University in Rabat, Morocco (grant Averroes).
- 2008-2009** Temporary Lecturer at Faculty of Science, Mohammed V University in Rabat, Morocco.

## LIST OF SCIENTIFIC PUBLICATIONS

### Books

1. **Mohamed Wahbi**. *Algorithms and Ordering Heuristics for Distributed Constraint Satisfaction Problems*. FOCUS Series. **Wiley-ISTE**, 2013.

### Ph.D. thesis

1. **Mohamed Wahbi**. *Algorithms and Ordering Heuristics for Distributed Constraint Satisfaction Problems*. PhD thesis. University of Montpellier, France & Mohammed V University in Rabat, Morocco, 2012.

### Journal articles

1. **Mohamed Wahbi**, Redouane Ezzahir, Christian Bessiere, and El Houssine Bouyakhf. Nogood-based Asynchronous Forward Checking Algorithms. *Constraints*, **18(3)**:404–433, 2013.
2. Younes Mechqrane, **Mohamed Wahbi**, Christian Bessiere, El Houssine Bouyakhf, Amnon Meisels, and Roie Zivan. Corrigendum to “Min-domain Retroactive Ordering for Asynchronous Backtracking”. *Constraints*, **17(3)**:348–355, 2012.

### International conference papers

1. **Mohamed Wahbi**, Diarmuid Grimes, Deepak Mehta, Kenneth N. Brown, and Barry O’Sullivan. A Distributed Optimization Method for the Geographically Distributed Data Centres Problem. In (to appear) Proceedings of the 14th International Conference on Integration of Artificial Intelligence and Operations Research Techniques in Constraint Programming, *CPAIOR’2017*. Padova, Italy, 2017.
2. **Mohamed Wahbi** and Kenneth N. Brown. A Distributed Asynchronous Solver for Nash Equilibria in Hypergraphical Games. In Proceedings of the 22nd European Conference on Artificial Intelligence Including Prestigious Applications of Artificial Intelligence (PAIS 2016), *ECAI’2016*. The Hague, The Netherlands, 2016, pp. 1291–1299.
3. **Mohamed Wahbi**, Younes Mechqrane, Christian Bessiere, and Kenneth N. Brown. A General Framework for Reordering Agents Asynchronously in Distributed CSP. In Proceedings of the 21th International Conference on Principles and Practice of Constraint Programming, *CP’2015*. Cork, Ireland, 2015, pp. 463–479.
4. **Mohamed Wahbi** and Kenneth N. Brown. Global Constraints in Distributed CSP: Concurrent GAC and Explanations in ABT. In Proceedings of the 20th International Conference on Principles and Practice of Constraint Programming, *CP’2014*. Lyon, France, 2014, pp. 721–737.
5. **Mohamed Wahbi** and Kenneth N. Brown. The Impact of Wireless Communication on Distributed Constraint Satisfaction. In Proceedings of the 20th International Conference on Principles and Practice of Constraint Programming, *CP’2014*. Lyon, France, 2014, pp. 738–754.

6. **Mohamed Wahbi**, Redouane Ezzahir, and Christian Bessiere. Asynchronous Forward Bounding Revisited. In Proceedings of the 19th International Conference on Principles and Practice of Constraint Programming, *CP'2013*. Uppsala, Sweden, 2013, pp. 708–723.
7. **Mohamed Wahbi**, Redouane Ezzahir, Christian Bessiere, and El Houssine Bouyakhf. Maintaining Arc Consistency Asynchronously in Synchronous Distributed Search. In Proceedings of the IEEE 24th International Conference on Tools with Artificial Intelligence, *ICTAI'2012*. Athens, Greece, 2012, pp. 33–40.
8. Christian Bessiere, El Houssine Bouyakhf, Younes Mechqrane, and **Mohamed Wahbi**. Agile Asynchronous Backtracking for Distributed Constraint Satisfaction Problems. In Proceedings of the IEEE 23rd International Conference on Tools with Artificial Intelligence, *ICTAI'2011*. Boca Raton, Florida, USA, 2011, pp. 777–784.
9. Redouane Ezzahir, Christian Bessiere, **Mohamed Wahbi**, Imade Benelallam, and El Houssine Bouyakhf. Asynchronous Inter-Level Forward-Checking for DisCSPs. In Proceedings of the 15th International Conference on Principles and Practice of Constraint Programming, *CP'2009*. Lisbon, Portugal, 2009, pp. 304–318.

### International workshops

1. Christian Bessiere, El Houssine Bouyakhf, Younes Mechqrane, and **Mohamed Wahbi**. Agile Asynchronous Backtracking for Distributed Constraint Satisfaction Problems. In Proceedings of the IJCAI'11 workshop on Distributed Constraint Reasoning, *DCR'2011*. Barcelona, Catalonia, Spain, 2011, pp. 16–29.
2. **Mohamed Wahbi**, Redouane Ezzahir, Christian Bessiere, and El Houssine Bouyakhf. DisChoco 2: A Platform for Distributed Constraint Reasoning. In Proceedings of the IJCAI'11 workshop on Distributed Constraint Reasoning, *DCR'2011*. Barcelona, Catalonia, Spain, 2011, pp. 112–121.

### National conferences

1. **Mohamed Wahbi**, Redouane Ezzahir, Christian Bessiere, and El Houssine Bouyakhf. Maintien asynchrone de la consistance d'arc dans la recherche distribuée synchrone. French. In Actes des 9ème Journées Francophones de la Programmation par Contraintes, *JFPC'2013*. Aix-en-Provence, France, 2013, pp. 347–356.
2. Christian Bessiere, El Houssine Bouyakhf, Younes Mechqrane, and **Mohamed Wahbi**. Backtracking asynchrone agile pour les problèmes de satisfaction de contraintes distribués. French. In Actes des 7ème Journées Francophones de la Programmation par Contraintes, *JFPC'2011*. Lyon, France, 2011, pp. 57–64.

### Technical reports

1. **Mohamed Wahbi**, Redouane Ezzahir, Christian Bessiere, and El Houssine Bouyakhf. *Nogood-Based Asynchronous Forward-Checking Algorithms*. Technical Report RR-12013. Montpellier, France: LIRMM, 2012, p. 29.

2. Christian Bessiere, El Houssine Bouyakhf, Younes Mechqrane, and **Mohamed Wahbi**. *Agile Asynchronous Backtracking for Distributed Constraint Satisfaction Problems*. Technical Report RR-11017. Montpellier, France: LIRMM, 2011, p. 26.

## TEACHING EXPERIENCE (FRENCH)

- |                  |  |
|------------------|--|
| <b>2012-2013</b> | <b>École des Mines de Nantes (EMN), France</b> <ul style="list-style-type: none"><li>- Encadrements des élèves ingénieurs dans différents projets :<ul style="list-style-type: none"><li>- Actualisation des Compétences en Développement et Conception (ACDC).</li><li>- Initiation à la Pratique Informatique : Projet Individuel de Programmation (IPIPIP).</li><li>- Projet intégrateur &amp; méthodes génériques - (PRIME).</li></ul></li><li>- Travaux dirigés et pratiques du module “programmation modulaire” (Bac+3)</li><li>- Travaux dirigés et pratiques du module “structures algorithmiques” (Bac+3)</li><li>- Travaux pratiques du module “Bases de données” (Bac+4)</li><li>- Travaux pratiques du module “Interfaces Homme-Machine” (Bac+4)</li></ul>   |
| <b>2011-2012</b> | <b>Faculté des sciences, Université de Montpellier, France</b> <ul style="list-style-type: none"><li>- Travaux dirigés et pratiques du module “Algorithmes d’exploration et de mouvement” (Master 1)</li><li>- Cours, travaux dirigés, et pratiques du module “Structures de données Java” (Master 1)</li><li>- Travaux dirigés et pratiques du module “Programmation par objet 2 /C++” (Licence 3)</li><li>- Travaux pratiques du module “Système d’information - Base de données” (Licence 3)</li><li>- Travaux dirigés et pratiques du module “Introduction à la programmation en Java” (Master 1 et Master 2)</li><li>- Travaux dirigés et pratiques du module “Algorithmique et Programmation - OCaml” (Licence 1)</li><li>- Travaux pratiques du module “Concepts de base en informatique - Certification C2I” (Licence 1)</li></ul> |

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| 2010-2011 | <p><b>Département Électronique Robotique et Informatique Industrielle (ERII), Polytech'Montpellier, Université de Montpellier, France</b></p> <ul style="list-style-type: none"> <li>– Travaux pratiques du module “Programmation en C++”</li> </ul>                       |
| 2008-2009 | <p><b>Faculté des sciences, Université Mohammed V de Rabat, Maroc</b></p> <ul style="list-style-type: none"> <li>– Travaux dirigés et pratiques du module “Introduction à l’informatique : outils bureautiques, codage de l’information, algorithmique de base”</li> </ul> |

## SCIENTIFIC SOFTWARE

### DisChoco

- DisChoco: A java Open-Source platform for Distributed Constraint Reasoning (Satisfaction/Optimization). DisChoco is available at:  
<http://dischoco.sourceforge.net/>

## PROFESSIONAL ACTIVITIES

### Program committee member:

- International Conference on Principles and Practice of Constraint Programming (CP): [CP’2017](#)
- International Workshop on Optimisation in Multi-agent Systems (OPTMAS): [OPTMAS’2015](#), [OPTMAS’2016](#), [OPTMAS’2017](#)
- Journées Francophones de Programmation par Contraintes (JFPC): [JFPC’2014](#), [JFPC’2016](#), [JFPC’2017](#)
- Doctoral Program of International Conference on Principles and Practice of Constraint Programming (DPCP): [DPCP’2016](#)
- The International Symposium On Ubiquitous Networking: (UNet): [UNet’2015](#)

### Reviewer:

- Journals:
  - Artificial Intelligence Journal ([AIJ](#)),
  - [Constraints](#),
  - Journal of Autonomous Agents and Multiagent Systems ([JAAMAS](#))
- International Joint Conferences on Artificial Intelligence (IJCAI): [IJCAI’2015](#), [IJCAI’2016](#)

- Association for the Advancement of Artificial Intelligence Conference (AAAI): [AAAI'2015](#), [AAAI'2016](#), [AAAI'2017](#)
- International Conference on Principles and Practice of Constraint Programming (CP): [CP'2013](#), [CP'2014](#), [CP'2015](#)
- European Conference on Artificial Intelligence (ECAI): [ECAI'2010](#)
- International Conference on Integration of Artificial Intelligence (AI) and Operations Research (OR) techniques in Constraint Programming (CPAIOR): [CPAIOR'2013](#) [CPAIOR'2017](#)
- IEEE International Conference on Tools with Artificial Intelligence (ICTAI): [ICTAI'2013](#)
- International Joint Workshop on Optimisation in Multi-Agent Systems and Distributed Constraint Reasoning: [OptMAS-DCR'2014](#)
- International Workshop on Distributed Constraint Reasoning (DCR): [DCR'2010](#), [DCR'2011](#), [DCR'2013](#)
- European Workshop on Multi-Agent Systems (EUMAS): [EUMAS'2010](#)

#### **Organizing Committee Member:**

- Student Volunteers on European Conference on Artificial Intelligence (ECAI): [ECAI'2012](#)

#### **Professional memberships:**

- Association for Constraints Programming ([ACP](#))
- Association Française pour la Programmation par Contraintes ([AFPC](#))
- Association Française pour l'Intelligence Artificielle ([AFIA](#))

#### **LANGUAGES**

|                   |               |
|-------------------|---------------|
| <b>English</b>    | Fluent        |
| <b>French</b>     | Fluent        |
| <b>Arabic</b>     | Mother tongue |
| <b>Tamazighte</b> | Mother tongue |

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