





Engineer and PhD Student in Optimization and Algorithms for Telecommunications

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Training & Diplomas

2009-2012: Ph.D. in CIFRE contract between Orange Labs and INRIA (France)
2006-2009: Diploma of Engineer in Networks and telecommunications systems at INPT Rabat (Morocco).

Skills

Technology: WiFi, GSM, CDMA200, UMTS.

Languages& Protocols: C, C++, Java, Shell Scripts, TCP/IP, XML, Socket Programming. Knowledge: Graph theory, linear programming, combinatorial optimization, stochastic analysis, Algorithmic Game theory, Approximation of hard problems, Complexity theory and Web technologies.

PhD thesis

<u>**Title:**</u> Algorithmic tools for detecting communities in graphs.

Location: The research was conducted within the SPO team (Services Performance and Optimization) of Orange and in cooperation with the MASCOTTE team, joint INRIA team and I3S (CNRS/UNS).

Work (Ongoing):

- Studies of the optimization tools and graph theory for application in the communities detection.
- Matroid techniques for detecting communities in graphs.
- Maximization modularity by the spectral clustering methods.
- Random walk methods for social networks.

- Game theory.

Publications and workshops

Journals:

J. GALTIER, M. TOKO WOROU. Fast Approximation for Computing the Fractional Arboricity and Extraction of communities of a Graph. Discrete Applied Mathematics (under revision) 2010.

Workshops:

- J. GALTIER, M. TOKO WOROU. Nouvelle Approche pour le Problème de Modularité, in "Workshop Algorithmique, combinatoire du texte et applications en bioinformatique (<u>GTSEQ</u>)", January 2010.
- 2- J. GALTIER, M. TOKO WOROU. Fast Approximation for Computing the Fractional Arboricity of a Graph, in "Conference on Optimal Discrete Structures and Algorithms (<u>ODSA</u>)", September 2010.
- 3- J. GALTIER, M. TOKO WOROU. Densest Subgraphs Detection by a fast Approximation of the Fractional Arboricity of a Graph, in "Congrès de la Société Française de Recherche Opérationnelle et d'aide à la Décision (<u>ROADeF</u>)", Mars 2011.

Languages

French: Fluent

English: spoken, read and written.

Extracurricular Activities

- I taught the course of routing protocols at the IUT of Nice-Sophia Antipolis in 2010 and 2011.
- I got Bronze medal at the 14th edition of the Pan African Mathematical Olympiads Tunis 2004.
- Hobbies: Football, basketball, travel.