

Le Laboratoire d'informatique, de robotique et de microélectronique de Montpellier est une unité mixte CNRS et Université Montpellier 2

Ce nouveau numéro dédié à l'attractivité donne la parole à cinq des nouveaux entrants arrivés au cours de l'année 2008. Chaque année, le LIRMM accueille en son sein des chercheurs originaires des quatre coins du globe : « **United Minds of LIRMM** » !

Michel Robert

Madalina Croitoru

Maître de Conférences UM2, Roumanie

I started working at LIRMM as an Associate Professor (Maître de Conférences) within the «Représentations de Connaissances et Raisonnements» (Knowledge Representation and Reasoning) group, in September 2008.

Both my Ph.D. and post-doc research have focused on this area of artificial intelligence, and the opportunity to work in the RCR group at LIRMM was thus an amazing chance to further my research in the field. It was a big decision to make, given that, after living 6 years in the UK, I was just about getting used to the culture, language and diet.

It was the high quality of the team's research, combined with the warm friendliness of the people that helped me make this decision.



suite au verso

Chao Liu

Chargé de Recherche CNRS, Singapour

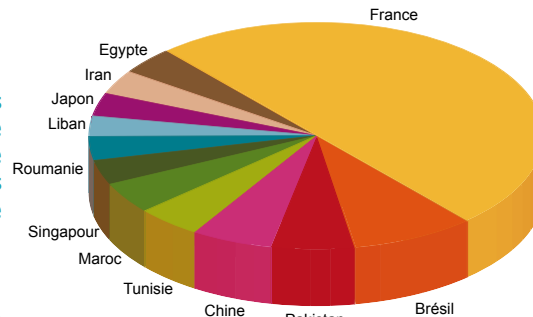
My name is Chao Liu and I am now a CNRS CR researcher at the LIRMM. Before I joined LIRMM, I worked as a research fellow at the Nanyang Technological University of Singapore, where I obtained my Ph.D. degree.

I have known LIRMM since 2006. At that time I was looking for academic positions in the area of Biomedical Robotics, so I talked to the professors from the Biorobotics group of our university since they have international collaborations with many good universities and research institutes, and they recommended LIRMM to me.

Then I checked the publication and project descriptions of the Robotics Department and found that they are really doing well in this area.



suite au verso



*Pays d'origine des nouveaux entrants de l'année 2008
(44 chercheurs, dont 33 doctorants)*

Ghulam Mahdi

Doctorant, Pakistan

I came here for my Master's stage, and that first interaction with the LIRMM was so wonderful that I continued with it for my doctoral studies. At the LIRMM we have different research groups working in correlation with each other, and also in cooperation with industrial and international collaborators.

During my Master's stage I benefited from some visiting delegations from Japan, which gave me an idea about the international input to the field.



suite au verso

Mitsuhiro Hayashibe

Chargé de Recherche INRIA, Japon

I have been doing a research on the application of robotics, control, and informatics to a medical and surgical field. The present work is concerned with computational modelling and identification of muscle dynamics under Functional Electrical Stimulation (FES). I am working on the DEMAR project, at INRIA and LIRMM as a research scientist. FES is an effective technique to evoke artificial contractions of paralyzed skeletal muscles through neural and muscular stimulation. My own part is the modelling and controlling of the human sensory-motor system.



suite au verso

Alexandre Pinlou

Maître de Conférences UM3, France

I was freshly hired as an Associate Professor at the University Paul-Valéry, Montpellier 3 and I am affiliated with the LIRMM, where my research are done within the Algorithms, Graphs and Combinatorics (AlGCo) group.

I studied computer science at University Bordeaux 1. I did my Ph.D. thesis on colourings of oriented graphs at the LaBRI (Laboratoire Bordelais de Recherche en Informatique). During the summer of 2007, I had to choose between an A.T.E.R. position at Bordeaux 1 and an A.T.E.R. position at Montpellier 3. I decided to move to Montpellier where I had already met Stéphan Thomassé. I therefore joined the Algorithms, Graphs and Combinatorics group and I discovered a dynamic and stimulating working atmosphere. Concerning University Paul-Valéry, my colleagues welcomed me warmly and it was very pleasant to teach there.

It was then not difficult to choose and accept the permanent position that University Paul-Valéry offered me last June.

I am working on graph theory. More precisely, I am interested in several kinds of graph colourings such as oriented graph colourings, colourings of mixed graphs and list-colourings. The notion of homomorphisms is closely related to graph colouring, and I therefore study graph homomorphisms intensively. I also work on arc partitioning problems such as directed star arboricity.

My research is essentially theoretical but may have applications, in particular for frequency assignment problems in wireless networks or in WDM networks.



● ● ● (Madalina Croitoru)

My Ph.D. research at the University of Aberdeen led me towards Conceptual Graphs - an elegant, user-friendly way to visually represent logical statements about a given domain. Even better, reasoning could be translated into graph-based operations, making things really intuitive. Since beginning my work in this field, I was greatly influenced by the RCR team's publications in the area. Meeting them a year later at my first conceptual graphs conference was even better: I still remember our first work conversations and how enthusiastic I was when I returned to Aberdeen. In the years that followed, we kept meeting at conferences, and the brief few days spent talking with different members of the team were of great use for the work I was pursuing during the year. Also, as a side benefit, I was

slowly getting accustomed to French music - I entirely owe my taste for French punk to those encounters.

Then, during the final year of my post-doc at the University of Southampton, I learnt that there was a position available in the RCR group. The work I had been involved with in the University of Southampton was centred around the latest Semantic Web technologies applied to real-world applications such as Healthcare and Information Integration. Working in such concrete domains has, once more, confirmed to me that visual languages for both representation and reasoning are of great practical benefit. Knowing that I could reuse what I had learnt during this time to the research and work carried out by the RCR team was my main motivation for applying for the position.



Now that I am here, I am really looking forward to the work in the lab. It is great fun pursuing the line of work I am interested in and, more importantly, having great people to bounce ideas off. I will also need to start getting used to the culture, language and diet... ■

● ● ● (Ghulam Mahdi)

When I came here I was very much concerned with my research topic but later with the help of the SMILE team I was guided to become an active member of the lab.

Here we hold regular meetings where students in the team present their research and other team fellows offer their comments and criticism to refine it.

Then, when it comes in a documented form, it is revised multiple times by the adviser(s) before submission to any external body. Although this is a tough process, it benefits student performance and competence overall.

Beside the regular "thesis status" meetings here, we arrange fortnightly seminars on some subjects where the topic is presented with all its breadth. Lab timing is also flexible, allowing each person to work independently according to his/her own timing. Independence in research counts a lot here; researchers are concentrated on their own interests in the field.

My French was not so good at the start, but here the environment is quite friendly so lab fellows helped me in learning French. Also I never felt "quite lost" due to language understanding, as almost all lab staff and researchers can understand/speak English. Apart from technical and research events, LIRMM also arranges frequent general social gatherings where all researchers get an opportunity to get together to play, eat and discuss. ■

● ● ● (Mitsuhiro Hayashibe)

A precise skeletal muscle model is required to produce the well-predicted force of each muscle. The skeletal muscle dynamics are highly non-linear, and we have to identify many unknown physiological and biomechanical parameters. The principal objective of this study is to develop an experimental identification method to identify unknown internal parameters from limited information. This process is essential for realistic force prediction for FES.

Montpellier is a good place to study, especially about biomedical research. There are the Department of Medicine, University Montpellier 1 and some facilities for physical therapy. We are gathering essential experimental information from

patients with spinal-cord injuries at PROPARA, located near LIRMM. The research for this project needs a multi-directional approach like physiology, robotics, electronics and informatics. LIRMM covers these engineering fields and the environment in Montpellier can correspond to biomedical issues. This is my motivation to join this laboratory and I am satisfied with the opportunity to work here. Our interests are also centred on the human sensory-motor system, including muscles, sensory feedback, and neural motor networks. I would like to apply the robotics approach to realize an enhancement for physical therapy technology. Then the information which would be obtained should also be important for robotics itself, as in the sense of humanoid development. ■

● ● ● (Chao Liu)

I chose to work at LIRMM for several reasons. First of all, the LIRMM Robotics Department is very strong in biomedical and surgical robotics, and every researcher here has expertise in certain aspects of this area. There are also many Ph.D. students to support the research work, as well as excellent experimental facilities to verify the research results.

Secondly, LIRMM is involved in many big European Union projects and has close collaboration with many good national and internatio-

nal universities and research institutes and hence it is easy for me to get updated with the latest developments and trends in my research area. And last but not least, people here are all very nice. During my first one year stay here as a post-doctoral researcher, I made a lot of friends and it made my life in France much easier.

As a summary, I like people in this lab and I enjoy my research work here. LIRMM is the place where I decided to carry out my academic career. ■



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