3.7 Professor Da Ruan, Distinguished Visitor at Complutense University, Madrid

Prof. Dr. Javier Montero¹, Prof. Dr. Begoña Vitoriano¹, and Prof. Dr. Daniel Gómez²

¹ Facultad de Matemáticas
² Escuela de Estadística, Universidad Complutense de Madrid, Madrid, Spain

This short note is written as a contribution to the memory of Prof. Da Ruan. We shall try to reflect how he was entitled to stay two months (April-May 2011) as “Distinguisher Visitor” at Complutense University, Madrid, based upon his past collaborations without team, and pointing out some of the projects we jointly developed and launched during such a period. Beside the strictly scientific arguments towards his academic excellence, we want to stress his continuous support to explore new initiatives from a sincere and friendly collaboration.

Complutense University is the biggest University of Spain in number of regular students (i.e., excluding those students from on-line courses). More than 80,000 students and almost 8,000 professors join Complutense University. The programme for Distinguished Visitors was created some years ago to bring to our university leading researchers that could help to launch new strategic projects. In order to be selected as Distinguished Visitor at Complutense University it is taken into account not only excellence in research, but leadership and ability to give in few months a definitive impulse to some strategic project. Professor Da Ruan got such a Distinguished Visitor ship for the course 2010-2011, and spent in our university two months, from first April to first June, 2011. During those two months in Madrid, Da Ruan worked within our Decision Aid Systems research group into two main projects.

On one hand, Da Ruan worked with our aggregation working group, led by D. Gómez, studying the properties of consistency and stability of aggregation operators and obtaining some interesting mathematical results with potential implications in several fields. Some preliminary results have been published in several conference proceedings, and put into a paper co-authored by Da Ruan, still to be published. In this paper we have shown the necessity of considering some consistency and stability definitions within some families of aggregation operators. Within this framework, Da Ruan also worked with us in the design of a COST European Project entitled “Integrated Uncertainty Analysis Theories for Complex Systems”, which will be hopefully submitted in January 2012. The main aim of this project is to integrate various uncertainty analysis theories such as Probability Theory, Fuzzy Sets Theory, Intuitionistic Fuzzy Sets, Rough Sets, Data Mining, Possibility Theory, Lattice Valued Logic and Evidence Theory into a unique general mathematical framework that can deal with different uncertainty-based
information such as incomplete, imprecise, fragmentary, not fully reliable, vague, contradictory and overloading in complex systems.

On the other hand, three additional main achievements specifically focussed on disaster management were launched during those two months of Da Ruan while in Madrid: a joint paper on a new continuous extension of Belnap’s four valued logic, an Atlantis Press-Springer book on decision analysis and support in disaster management to be edited by J. Montero, D. Ruan and B. Vitoriano, and an ambitious project recently submitted for funding within the European Union framework. This Disasters Management working group is led by B. Vitoriano, which was the nominal hostess of Da Ruan as Distinguished Visitor at Complutense University. Da gave this working group a view of the future, and accelerated (even more) our rhythm of research, launching us to risky and exciting academic adventures. Da gave us organization skills and strength based upon an intense and extraordinary daily academic activity, still allowing room to deep and quite conversations about less technical issues, either professional or nonprofessional. Above all, he gave members of this working group confidence in themselves, confidence to tackle challenges. His visit marks indeed a before and after in our Disasters Management working group. Da pushed this working group to request all previous and establish new strategic contacts in disaster management and closely related research fields, which has been finally fruitful in a consortium which has already began to act as a team.

All these experiences will prove to become steady collaboration projects, as Da made clear in the meetings he organized in Madrid, where a number of prestigious researchers were enthusiastically involved in some of the above projects (another meeting had been scheduled in Malaga last September, and we had to sadly meet missing his leadership). Not having Da Ruan with us any more is indeed painful for us, and we have needed some time to recover from such a terrible shock. But we will make our best to continue his work and fulfil his vision. His work will be fruitful beyond all the above particular projects, simply because they will bring all its participants into joint long term projects, and such collaboration will bring highest objectives to be pursued. His departure left us puzzled, but the vision he brought to us will make us continue and develop all the projects he pushed with us, and that we could not have started without him. Yes, there is a before and after, thanks to Da this Disasters Management working group is greatly expanding, and we look forward to future attractive objectives.

Beyond our research group, Da impressed our colleagues in his several talks at our Faculty seminars, but also in his daily affability and proximity. Da continuously showed how to keep under control a number of variables, still creating a friendly environment from the first day, with no stress despite the overloading of work and meetings. A lot of researchers at Complutense University got benefits from Da Ruan’s visit. Thanks Da!