Imperial College London

31 October 2017

Head of Selection Committee University of Naples Naples Italy Department of Computing Imperial College London

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Prof. Alessio R Lomuscio PhD, FBCS, FEurAl Professor in Logic for Multi-Agent Systems Head of Strategy and Planning

Dear Colleague,

RE: Dr Sasha Rubin

I am delighted to to provide a reference for Dr Sasha Rubin's application for a post at the University of Naples. In summary, I believe Dr Rubin to be an outstanding researcher. He is the strongest candidate that has appeared on the international job market on themes of Logic and Artificial Intelligence for several years. I recommend him in the strongest possible way.

As a way of introduction, since 2011 I have been Full Professor in the Department of Computing at Imperial College London in the UK. I have been an active researcher for more than two decades, with my first work published in 1995. I have co-authored over 150 journal and conference articles, and edited several conference proceedings. I am presently serving as Editorial Board Member of the Journal of Artificial Intelligence Research, as a senior Program Committee member for AAAI 2018, senior Program Committee member for IJCAI 2018, and area chair for AAMAS 2018. Over the years I have covered roles from PC-chair to PC-member for over 100 international conferences. At Imperial College London, in addition to my research and teaching roles, I currently act as Head of Strategy and Planning and have served in various roles previously, including Deputy Head of Department.

I have known Dr Rubin for approximately 5 years and have been able to work with him over the past 2 years on a research line concerning the verification of broadcasting systems against rich specifications. From my initial technical conversations with him, I have been impressed by Dr Rubin's sophisticated technical abilities on logic, automata theory, and verification. This was not unexpected given the high quality of his talks that I had previously attended, the calibre of his collaborators, and the very significant portfolio of research papers he had accumulated by that time. But even against my high expectations, I have often been taken aback by how Dr Rubin can distil and simplify a technical problem to its core constituents and develop new methods to solve them. Over the past 2 years I was happy to put aside other research lines to ensure I had the resources to work with him on our joint work. I find working with him hugely stimulating and rewarding.

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Dr Rubin's research output is simply outstanding for his level. Over the past two years he has co-authored 11 papers in A* conferences, including IJCAI, AAMAS, and KR. These are the most prestigious conferences in AI. I know very few people worldwide with these levels of output. All of them are experienced full professors with large groups consisting of several junior researchers; none of them is a young researcher like him. This is hugely impressive and a mark of the highest possible quality.

From his wide and numerous research output I would personally highlight his deep and original work in parameterised verification and, more recently, strategy logic. His research papers on these lines are effectively changing the discipline by providing very significant results in the community of formal aspects of AI. A feature of Dr Rubin that I have great respect for is that he always seeks deep results that will make a lasting contribution to the discipline. He is not satisfied with pursuing "low hanging fruits", even if these would add a paper to his name. This is a mark of a true scientist; precisely those that we need today.

On a personal level, Sasha is friendly, passionate about science and generous with his time and expertise. I have seen students both at undergraduate and graduate level benefit from interacting with him hugely. Indeed, I have personally learned a lot by working with him. I regard myself fortunate for having been able to do so.

In summary, I regard Dr Rubin as a stellar young researcher with a bright future ahead. He will make a substantial contribution to any Department both scientifically and in teaching. I am not aware of anyone on the international job market at his level with a research track record stronger than his. I recommend him in the strongest possible terms.

Please do not hesitate to contact me should you require any further information.

Best regards,

Alessio Lomuscio