



28 February 2016

Professor Zdeněk Hradil Vice Dean, Faculty of Science Palacky University 17. listopadu 12 77146 Olomouc Czech Republic

Jaroslav Řeháček's promotion to the rank of Professor

Dear Vice-Dean Hradil,

Please allow me to support Associate Professor Jaroslav Řeháček's ("Jarda's") application for promotion to Professor by this letter of recommendation. I am, in fact, very strongly supportive of this well-earned promotion.

I have known and collaborated with Jarda for many years. He has been my guest in Singapore several times, and each stay was extremely beneficiary. By my count, we have eight joint publications since 2004, all in highly respected journals, plus the 2004 arXiv posting that introduced the "Singapore protocol" for quantum key distribution (QKD), which – not at all for Jarda's fault, but for reasons that I'd rather not comment on here – has not appeared in print.

Our joint work stretches from schemes for quantum tomography to security analysis of QKD protocols, to quantum state estimation. All joint papers have a distinctive Jarda touch, they would not exist without his profound contributions. I am pleased, but hardly surprised, that the 2004 paper on *Minimal qubit tomography* is one of Jarda's most cited papers. Yet, myself, I treasure our papers on *How well can you know the edge of a quantum pyramid?* (2010) and on *Quantum state reconstruction by maximum likelihood and entropy* (2011) more, as these were harder, and more rewarding, pieces of work.

Clearly, Jarda is a seasoned researcher at home in various domains of quantum physics, and I am also aware of his expertise in classical optics and inverse problems. In this respect, he is obviously qualified for the rank of professor.

While, for lack of data, I cannot comment on his performance as a classroom teacher, I can assure you that he gives talks that are well organized and confidently delivered. I can further attest that he is very good at guiding students. I had ample opportunity to observe this during Jarda's stays in Singapore when the students, both undergraduates and postgraduates, visibly enjoyed learning from him.





Let me close on a personal note. Jarda is a fine example of an accomplished researcher who, contrary to what is today's custom, does not go around boasting with his achievements but rather relies on his work to speak for him – and so it does. I am glad to have him as a colleague, not the least for his superb sense of humor.

In summary, I support Jarda's promotion to Professor in the strongest possible terms and without the slightest hesitation or reservation.

I trust that these remarks are useful and send my best wishes

Berthold-Georg Englert

Professor

Center for Quantum Technologies (CQT)

and Department of Physics

National University of Singapore (NUS)

http://physics.nus.edu.sg/~phyebg (Physics)

http://www.quantumlah.org/research/group/PI/9 (CQT)