UNIVERSIDAD DE GRANADA

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To whom it may concern

I was the advisor of Mario Román García during his collaboration grant in our department. Also I was one of his Bachelor Thesis advisors. Mario Román García is currently following the MSc in Mathematics and Foundations of Computer Science at Oxford University. He has a double degree in Mathematics and Computer Science at the Universidad de Granada. His qualifications are excellent in both degrees.

I met Mario while I was teaching SageMath for a course on Commutative and Computer Algebra. He is one of the best students I ever had. Also he organized many seminaries and events related to Free Software and Mathematics while he was in our university; he is an active member of LibreIM (`https://libreim.github.io`). This is precisely why I proposed him to apply for the collaboration grant in our department.

As a part of his Bachelor Thesis, Mario implemented a λ-interpreter in Haskell. He made it available via Haskell, as a jupyter kernel, and also through a webpage (porting it first to JavaScript; see `https://m42.github.io/mikrokosmos`). I used this interpreter while teaching λ-calculus and Combinatory Logic in the course "Logic and Programming", which is offered in the degree in Computer Science at our university. A quick look at Mario's profile on GitHub (`https://github.com/m42`) shows that he is quite active, and has a wide range of interests covering many topics in Mathematics and Computer Science.

He attended the School and Workshop on Univalent Mathematics held at the University of Birmingham in December, 2017. Last summer he also followed the EUTypes Summer School in Macedonia.

Mario's Bachelor Thesis is devoted to λ-calculus, type theory and categories with applications to the implementation of functional programming languages. He received recently a price for the best Bachelor Thesis in Mathematics at the University of Granada for the academic year 2017–18.

The Applied Category Theory School is thus a wonderful opportunity to complete Mario's formation. Mario has a strong preparation that goes further than the one received in our university; he has studied many topics by his own.

His duties for the collaboration grant were maintenance of a jupyterhub server, with python, sagemath, gap and octave kernels. As mentioned above, mikrokosmos has been used in teaching, and he organized seminars and helped with the free courses we organize in our department.

Mario's mother language is Spanish, but he speaks and writes English fluently; he has a C2 certificate. His Bachelor Thesis was written in English.

Please feel free to contact me if you have any queries concerning the candidate.

Sincerely,

Pedro A. García-Sánchez

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