

Moez A. AbdelGawad is an Assistant Professor of Quantum Informatics and Programming Languages at the Informatics Research Institute (IRI), SRTA-City. Since 2020, Dr. AbdelGawad has continuously been a Remote Visiting Scientist at the Computer Science department, Rice University (Houston TX, USA) and an Adjunct Assistant Professor at the Computer & Systems Engineering department, Faculty of Engineering, Alexandria University.

Dr. AbdelGawad's current research focus is on analyzing and finding efficient quantum algorithms for some useful but classically intractable problems, using a quantum informatics approach and tools of spectral and algebraic graph theory. To aid researchers and students in the field, Dr. AbdelGawad recently authored QAL (Quantum Algorithms Lab) as an innovative visual interactive web app for researching and teaching quantum algorithms and related mathematical fields.

Dr. AbdelGawad earned his Ph.D. in 2011 at the Computer Science department, Rice University (Houston TX, USA). In his Ph.D. thesis Dr. AbdelGawad presented NOOP as a precise mathematical model of nominally-typed OOP. NOOP enabled him to prove, for the first time in programming languages research, that inheritance and OO subtyping are completely identified in mainstream OOP. Dr. AbdelGawad adapted and published his Ph.D. thesis as a book in 2013.

Dr. AbdelGawad has authored several papers on the semantics of generic nominally-typed OO programming languages such as Java and C#. These include a poster presented in 2019 at the Applied Category Theory conference, organized by the *Quantum Group* at Oxford University, UK.

During 2015 and 2016, Dr. AbdelGawad was a Visiting Scientist at the College of Mathematics, Hunan University (Changsha, China). In 2005 he also interned on developing the Scala compiler at the Computer Science department, Ecole Polytechnique Federale-Lausanne (EPFL), Lausanne, Switzerland.

Dr. AbdelGawad earlier earned his M.Sc. and B.Sc. at the Computer Science department (currently, CSED), Faculty of Engineering, Alexandria University, Egypt. In his M.Sc. thesis he presented 2DEM as a novel encryption mode. In his B.Sc. graduation project he worked on automated Human Face Recognition (HFR).

Dr. AbdelGawad has strong interest in improving STEM education. Dr. AbdelGawad loves to play with Rubik's Cube and other recreational games. In 2009 he authored the *first* Arabic-language YouTube videos to explain how to solve Rubik's Cube. Dr. AbdelGawad also loves diverse readings. Time-permitting, he also likes open-air walking, jogging, and playing soccer.

More information on Dr. AbdelGawad's activities can be found in his CV and extended biography, available online.