

Fabrizio Flacco

By Alessandro De Luca

It is with deep sorrow that I share with the IEEE Robotics and Automation Society (RAS) community the sad news of the death of Fabrizio Flacco, who suddenly passed away at the age of 34 on 18 September 2016 in Montpellier, France, due to an unexpected heart complication. Fabrizio was a master student of Antonio Bicchi at the University of Pisa, Italy, until 2007. He then transferred to the University of Rome, “La Sapienza,” Italy, where he received his Ph.D. degree at the end of 2011 with his dissertation, “Modeling and Control of Robots with Compliant Actuation.” During these years, he spent an eight-month research period at the Stanford Artificial Intelligence Lab with Oussama Khatib and his group. He was then a postdoc at our Department of Computer, Control, and Management Engineering (DIAG), working actively for the FP7 Safe and Autonomous Physical Human-Aware Robot Interaction (SAPHARI) and the H2020 Multicontact Collaborative Humanoids in Aircraft Manufacturing (COMANOID) European projects.

In December 2015, he became a Chargé de Recherche (tenured research scientist) of the French CNRS at the Montpellier Laboratory of Informatics, Robotics, and Microelectronics (LIRMM) in the Interactive Digital Humans (IDH) group led by Abderrahmane Kheddar. Fabrizio moved to the sunny

city of Montpellier in the south of France with his wife and their 4- and 3-year-old daughters.

Fabrizio was an RAS student member since 2009 and then a member from 2012. He served our community in different ways: he was among the promoters of the workshop series, Human-Friendly Robotics, a very central event for young researchers in the field; he organized several workshops at the IEEE International Conference on Robotics and Automation and the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS); and he was one of the associate editors for *IEEE Robotics and Automation Letters* and cochair of the

RAS Technical Committee on Algorithms for Planning and Control of Robot Motion. A brief scientific curriculum vitae of Fabrizio can be found at <http://www.lirmm.fr/users/utilisateurs-lirmm/fabrizio-flacco>.

I worked with him for about eight years, first as his Ph.D. degree supervisor and then as a colleague, and I have always appreciated his technical expertise, innovative thinking, availability, and reliability (his robot control algorithms have run seamlessly in Rome, Stanford, Toulouse, at Airbus, at the German Aerospace Center, in Montpellier, and more), all joined with a reserved but very easy-going character. Those who have

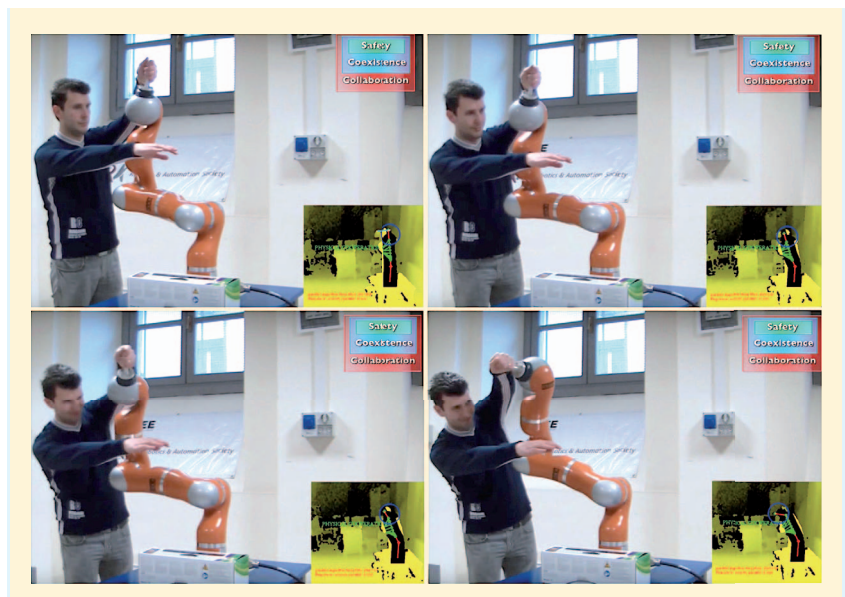


Figure 1. Still frames from a video showing Fabrizio as he demonstrated the results of his comprehensive control framework for safety, coexistence, and collaboration in physical human–robot interactions.



Figure 2. Fabrizio accepting the 2016 IEEE RAS Italian Chapter Award for Best Paper by Young Author from Chapter Chair Lucia Pallottino.

interacted with Fabrizio certainly share these feelings.

Out of his scientific contributions, I would like to point out his work that led to the Best Conference Paper Award, which he received at the fourth RAS conference on Bio-

medical Robotics and BioMechatronics in 2012. In that paper, he proposed a comprehensive control framework for safety, coexistence, and collaboration in physical human-robot interactions. You can see Fabrizio demonstrating some of these

results in a video available on YouTube at <https://youtu.be/pIIhY8E3HFg>, which was an award finalist at IROS 2013 (Figure 1).

Also notable was his work on the kinematic control of redundant robots under hard motion constraints, which appeared as a regular paper in *IEEE Transactions on Robotics* in June 2015, coauthored with Oussama and myself. For this paper, Fabrizio received the 2016 IEEE RAS Italian Chapter Award for Best Paper by a Young Author (Figure 2). This was early in September 2016, just a few days before he left us. The Chapter decided right away to name the award after him (see <http://www.i-ras.it/node/129>).

It is very hard to witness the passing of such a wonderful man at such a young age. Our heartfelt condolences go to his family, from all his friends and colleagues. A collection of memories and pictures can be accessed at <http://homepages.laas.fr/afranchi/robotics/remembering-fabrizio>.

Ciao, Fabrizio; rest in peace.

The Unexpected Passing of a Pioneering Robot Designer

By Bernard Roth

Victor (Vic) Scheinman (Figure 1) died at the age of 73 from a heart attack while visiting his brother in Northern California. Vic lived in Woodside, near Palo Alto, California, and in San Francisco, California. He graduated from the Massachusetts Institute of Technology (MIT) with a degree in aeronautics and astronautics. He then



Figure 1. Vic on the Paris Subway 15 June 2015. (Photo courtesy of Bernard Roth.)

entered Stanford University in California as a graduate student in mechanical engineering and also spent a year in Belgium at the von Karmen Institute for Fluid Dynamics. After completing his master's degree, he joined the Stanford Artificial Intelligence Lab and worked toward obtaining an engineer's degree, which he received in 1969.

While performing research for his thesis, Vic explored the idea of having a purely digital mechanical arm. This led to the *Orm*, which was a prototype of a pneumatically actuated,