# KNOW THE PERSON BEHIND THE PAPERS

Mariangiola Dezani-Ciancaglini

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**Bio:** *Mariangiola graduated in Physics the same year when Corrado Böhm joined the University of Torino as the responsible of the new degree in Computer Science. Mariangiola, having an interest both in research and in teaching, was planning to pursue an academic career in Theoretical Physics, but when she meet Corrado by chance she was totally fascinated by his imaginative way of investigating problems. Therefore, Mariangiola started to do research in Computer Science under the superb guidance of Corrado. She was always employed at the University of Torino, but she loved travelling and working with different people, hence she visited many universities and research centres during her career. As a self-present for her 50th birthday, Mariangiola got a PhD at the University of Nijmegen with her friend and co-author Henk Barendregt being her supervisor. At the core of the research activity of Mariangiola there are types, starting with intersection types for building models of the $\lambda$-calculus. Later, she devised types for object calculi, biological systems and concurrent processes, in particular session types for web services. Mariangiola became EATCS Fellow in 2015.*

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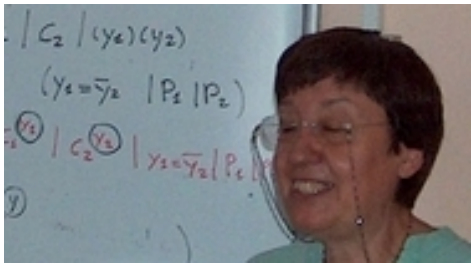

**We ask all interviewees to share a photo with us. Can you please tell us a little bit more about the photo you shared?**

**Mariangiola:** I share two photos which represent my main research interests. The first photo was taken in 1978 at the "Spring School on $\lambda$-calculus" and it appears in the book "The Lambda Calculus" by Henk Barendregt. In the second photo I am giving a talk in Novi Sad about session types in 2008.

**Can you please tell us something about you that probably most of the readers of your papers don't know?**

**Mariangiola:** I always loved to play with children and this activity frequently had a good influence on my scientific discoveries.

**Is there a paper which influenced you particularly, and which you recommend other community members to read?**

**Mariangiola:** One of the first papers Corrado suggested me to read was "Toward a mathematical semantics for computer languages" by Dana Scott and Christopher Strachey. This paper has influenced my love for semantics.

**Is there a paper of your own you like to recommend the readers to study? What is the story behind this paper?**

**Mariangiola:** Somebody interested to intersection types could look at "A tale of intersection types". I wrote this paper with my friend and ex-student Viviana Bono during the confinement for the Covid pandemic. My isolation was softened by this work.

**When (or where) is your most productive working time (or place)?**

**Mariangiola:** I can work everywhere, also surrounded by noise, but I like to sleep in the morning, while I can be productive late in the evening.

**What do you do when you get stuck with a research problem? How do you deal with failures?**

**Mariangiola:** I always try to work in parallel to more than one paper and with different people. In this way, when I find a difficult problem I can abandon it for some time. This usually helps in gaining a fresh look. Of course this is not a universal recipe, I have papers I will never finish.

**Is there a nice anecdote from your career you like to share with our readers?**

**Mariangiola:** My conversations with Corrado were always about science only. The day when I gave birth to my first child, Corrado called me and just after congratulating he asked me something about a joint paper. That was the only time in which I did not try to answer to an interesting question.

**Do you have any advice for young researchers? In what should they invest time, what should they avoid?**

**Mariangiola:** To be open in collaborating with people having different backgrounds. This can strongly widen the view.

**What are the most important features you look for when searching for graduate students?**

**Mariangiola:** I look for scientific curiosity and open-minded vision.

**Do you see a main challenge or opportunity for theoretical computer scientists for the near future?**

**Mariangiola:** In my long career I saw with pleasure many interesting results springing from theoretical computer science. I like to mention the isomorphism between Combinatory Logic terms with intersection types and proofs of the minimal relevant logic ("Intersection types as logical formulas" by Betti Venneri) and a formalisation of communication protocols between distributed peers ("Multiparty asynchronous session types" by Kohei Honda, Nobuko Yoshida, and Marco Carbone).

I must confess I was almost always incapable to predict these developments. Today, being retired and unable to meet colleagues because of the Covid restrictions, it is even more difficult for me. I can only say that I am sure the future of theoretical computer scientists will be full of success.

**What kind of opportunities should EATCS offer to researchers, and especially to young researchers?**

**Mariangiola:** The EATCS and also its Italian Chapter played a crucial role in my scientific development. In particular, the EATCS support to the organisation of conferences and workshops allowed my colleagues and myself fundamental scientific exchanges, unfortunately made impossible in the last two years by the pandemic. I am sure EATCS will take again this role as soon as the Covid pandemic will be over.

A big help for all researchers, and in particular for the young ones (usually also those with less research funds), would be a manifest in favour of open access publications without author fees and against the unjustified prices required by publishing houses. Moreover, the authors today prepare their manuscripts in the LaTeX style suggested by the journals, but frequently the typographers use a different style with the result of introducing meaningless breaks inside formulas and sometimes also mistakes to be fixed. This should be avoided with a clear benefit also for the printing costs.

**What can be the role of EATCS in solving the challenges of our society?**

**Mariangiola:** One of the main problem today is to fill the gap between the first and the third world. Open access publications without author fees will allow members of all research centres to keep up-to-date and to submit their manuscripts more easily. EATCS can play a fundamental role for the scientists working in the field of theoretical computer science.

**Please complete the following sentences?**

- *My favorite movie is "The Gospel according to Matthew" by Pier Paolo Pasolini.*
- *Being a researcher made my life full of exciting discoveries.*
- *My first research discovery was looking at the $\lambda$-calculus as a paradigm of functional programming languages.*
- *Theoretical computer science in 100 years from now will only appear in open access publications without author fees.*
- *EATCS in 50 years from now will celebrate the 100 year jubilee with many members from all parts of the world.*
- *Love of research and teaching is key to being a happy academic.*