

# My colleague, wife, and friend

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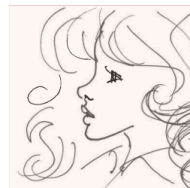
Inria Saclay & LIX, École Polytechnique

I remember seeing and speaking with Catuscia for the first time at the Third International Logic Programming Conference in London on June 1986. She was shy and uncomfortable with speaking English, so we had only a brief exchange about the weather. (Many years later I learned that she was one of the reviewers of the paper I presented at that meeting: she suggested accepting it—a good omen.) A couple of years later, about the time she received her Ph.D. from Pisa, Catuscia and I met again briefly at the Advanced School on Foundations of Logic Programming in Alghero, Sardinia in September 1988. This time we spoke even less since she was always disappearing after the lectures with a Dutch boyfriend. During the Logic in Computer Science (LICS) 1991 meeting in Amsterdam, we spoke a bit more, and I even signed the cast that she wore on her leg (injured from playing Frisbee).

It was not until LICS 1993 in Montreal that we had a serious conversation and it was mostly about scientific subjects. We both had an interest in logic and in concurrency theory but from somewhat different directions. Based on a promise that we would explore connections between these two topics, she was able to secure a grant from Italy for us to visit each other in Pisa and in Philadelphia. When she visited me in Philadelphia during the summer of 1994, our relationship moved far beyond the scientific, and our story would no longer be told as a series of meetings during conferences. We married in Pisa in March 1996.

I have shared in a bit of Catuscia's scientific life. During our stay at Penn State University (1997-2002), we managed to find some points of confluence between logic programming and concurrency, and we wrote four papers on how structured operational semantics and labeled transition systems can be encoded into logic. But even from the start of our relationship, Catuscia was following her own internal and demanding research agenda that carried her into and through a series of new research areas. I have vivid memories of us picking a wedding ring for her in Jeweler's Row in Philadelphia: while we had to wait for a jeweler to make some adjustments, she was distracted by showing how to separate the synchronous from the asynchronous  $\pi$ -calculi. Work on that topic required her to move beyond logic and concurrency to distributed computing.

After our move to France and Inria in 2002, we did not work together on research for about 10 years. During that time, her research interests matured and moved on. If a new topic could advance her research interests, she eagerly accepted the challenge to master yet another subject. I remember constantly finding thick textbooks on information theory and statistics under pillows and on top of chairs and sofas.



Countless printouts on topics such as the Kantorovich measure, information leakage, differential privacy, geo-indistinguishability, Bayesian inference, and probabilistic model checking were scattered everywhere in the house and the car. I could tell which printouts she had read because those were the ones covered with margin art such as what you see here.



By the next time we collaborated on something scientific—the co-supervising of a Ph.D. student on the topic of differential privacy—I was completely out of my comfort zone. In just a few years, Catuscia moved from being a novice in the area of privacy to being a pioneer in that field. Me, I'm still encoding things in logic.

Although we have not worked on joint scientific problems for years, we regularly discuss a range of professional topics such as advising, teaching, editing, reviewing, hiring, etc. Over dinner, our son—who shows an interest in pursuing academic studies—gets to hear a lot about how academic research is pursued: both the good and bad aspects. Fortunately, all this talk about the not-so-scientific aspects of academics has not dampened his interest in mathematics and science.



**Fig. 1.** Photos from our wedding in the Municipality of Pisa in 1996 and of our children with Catuscia in the Roman Colosseum in 2017.

Those who know Catuscia well know about her ability to focus and to be absorbed by a research topic. Those strengths that Catuscia brings to research she also brings to her family. This is particularly true of her role as the mother of our two children, Nadia and Alexis. When our daughter showed an interest in drawing and storytelling, our house gradually filled with novels and comic books that Catuscia and Nadia would read and discuss. A major event in our household was the arrival of a new edition of the French comic book series “Les Nombriils”. Our son has a passion for mathematics. When trying to understand some advanced mathematical concepts and problems, he sometimes encounters problems that he cannot solve. But he knows that if he approaches his mother in the evening after dinner with the problem, there is a good chance that she will work throughout the night looking for a solution, which she almost always succeeded in finding by the next morning.

Since she is an avid downhill skier, she realized that to maintain her annual skiing habit, she would need to teach every member of her growing family to ski, starting with me and then with each of the children shortly after they could walk. One of the few times I can remember seeing Catuscia in tears was about 12 years ago in the French Alps. She had been trying to learn to snowboard, but she kept failing. She was so desperate that I found her crying in our apartment one evening. However, she would not give up, and the next day, she bought hip pads that softened the falls while making you look ridiculous on the slopes. After several days with those pads, she mastered the board. Now she can snowboard with the rest of us on skis.

From time-to-time, Catuscia can also get absorbed entirely as a *bricoleuse*—a do-it-yourselfer. For example, a couple of years ago, our dishwasher failed to heat water. After watching a couple shaky videos on YouTube and reading some advice on some web forums, she got the courage to drag me into the maze of electrical wires, plumbing, and motors that is the guts of modern dishwashers. To her credit, we managed to swap out the bad water heater and reassemble the entire washing machine. It is still working today. But fixing a dishwasher is one of her smaller achievements. During the years 2013-2015, she directed the effort to design and build a new home for us. She followed all the construction work and, in the end, she spent months learning how to make some of the finishing touches on the house and built an internal staircase, laid parquet, and cut, painted, and mounted moldings.

Finally, I want to express my delight and appreciation with having Catuscia as a close friend and companion. Her warmth, commitment, humor, and lively energies directed towards her family and me have been an endless source of strength and renewal.

**Happy birthday, sweetheart.**