

Meenakshi

Meenakshi had a profound impact on my whole scientific career. Her advice, kindness, passion, knowledge, and extremely high standards, continue to be stamped on me. She has influenced who I am and what scientist I am.

I first met Meenakshi 23 years ago. I was a new graduate student from the University of Buenos Aires who came to Fermilab to work on the DZero experiment. I joined DZero at a time where preparations for Run 2 were starting. My interest was to pursue a Run 2 thesis exploiting the brand-new silicon tracker capability to perform b-tagging, for which I joined the vertex group who was led by Meenakshi at that time.

Very quickly, we developed an extraordinary and very close working relationship on vertexing, then b-tagging, and finally on the first steps towards measuring the $t\bar{t}$ cross section with early Run 2 data. Even though I was a Buenos Aires student, Meenakshi “adopted” me as her own graduate student. She was always available to support me. During my time at DZero, and through this collaboration, Meenakshi taught me what it is to be a scientist.

These years as a graduate student at DZero were some of the most exciting and intense in my life. With Meenakshi we developed the primary and secondary vertexing algorithms, b-tagging using secondary vertices, and the software framework. We then worked on the commissioning and calibration of vertexing and b-tagging with early data, and finally on the application of these new tools to identify top quarks. When I arrived at Fermilab I could have not imagined achieving any of this. Meenakshi was fundamental to make all my work coherent towards a common physics goal.

Meenakshi and I discussed results, plans, and ideas on an almost daily basis. She constantly pushed me to get the best of me. I learned physics, how to work in a large collaboration, how to keep up with competition, and a way of thinking. She was also always thinking many steps ahead of the work we were doing. For example, she made me start working on various key aspects of top physics while we were still extremely busy commissioning the secondary vertex b-tagging algorithm. She always had the big picture of the broader field.

Meenakshi was extremely demanding, and that often meant working a lot. I remember many nights when I was working until very late hours and Meenakshi would call me to my office regularly to check on my progress, discuss new results, and make sure I had all the support I needed.

Meenakshi's mentorship created an ideal working environment that inspired and motivated me throughout my whole Ph.D. Meenakshi's strong personality was part of this magic. Meenakshi made me feel my work was important, valued, and the most interesting, unique, and exciting activity possible. **The joy of my work was not just the research itself (which was fascinating), it was the research I was doing with Meenakshi. She added an entirely new dimension, fueled by her passion, dedication, inspiration, and personality.**

When Meenakshi relocated to Boston, she invited me for three months so that I would be able to continue to work closely with her while she was teaching and unable to travel to Fermilab. Such dedication and commitment made a strong mark on me. I remember this time as an extremely exciting and intense period of my life. Meenakshi would ask me for tons of new tables to understand the impact of various parameters and I would rush to the student's office at Boson to make them and interpret the results. Every time, these tables and detailed studies brought new light to the work we were doing and allowed us to constantly improve the secondary vertex b-tagging algorithm and introduce innovations. Meenakshi taught me how to approach research in an extremely systematic and detailed way, and always aiming at the highest quality. These lessons were deeply imprinted on me. **This way of thinking that I learned from Meenakshi has defined me as a scientist.**

Meenakshi always advocated for my work and pushed me in new directions. As a result of our strong collaboration, Meenakshi was officially appointed my thesis co-advisor and she and Ulrich later traveled to Buenos Aires for my thesis defense. These were also moments I will never forget.

Her mentorship did not end when I graduated. I reached out to Meenakshi every time I had career or work questions. Such continued support was invaluable. She would always be available for deep and insightful conversations and advice. **Meenakshi mentorship has been a lifelong commitment.**

What made Meenakshi an extraordinary mentor was that she was emotionally present all the time you discussed with her. This created an atmosphere of inspiration that generated ideas and motivation. You could see how Meenakshi was genuinely listening, trying to help and guide, and this human connection made all the difference. Ultimately, science is a human activity pursued by people, and it is the power of human connections that influences us in positive ways and advances our field.

Meenakshi's mentorship has profoundly shaped my career and continues to influence it to this date. I will be forever grateful to have had the privilege to be one of Meenakshi's students. She made me a scientist, and a better human being. **I will miss you greatly Meena.**