

In Memoriam: Professor Charles Maldarelli's Distinguished Career At CCNY

Charles Maldarelli was born in Brooklyn, NY, on November 7, 1954. He received a BS in Bioengineering in 1976, an MS and a DES in Chemical Engineering in 1978 and 1981, all from Columbia University. His MS thesis provided the mathematical framework for his DES thesis on "The linear, hydrodynamic stability of interfacially perturbed thin films with applications to the onset of small-scale biological cell membrane motions" under the guidance of Profs. Rakesh K. Jain and Ivan B. Ivanov. He joined the Levich Institute at The City College of New York as an Assistant Professor of Chemical Engineering in fall of 1981, received tenure and was promoted to Associate Professor in 1986, and became a Full Professor in 1992. His 45-year career at the Levich Institute touched various fields, but had at its core, body forces and their influence on interfacial films. Sadly, Prof. Maldarelli unexpectedly passed away on July 20, 2026. The visual timeline traces his research at the Levich Institute through the work of his 29 ChE PhD students, some of whom were co-advised with Profs. Zeev Dagan (ME), Kevin McKeigue, Alexander Couzis, and Raymond Tu.



Charles Maldarelli's Career At CCNY (cont'd)

Fenfen: "His patience, kindness, and thoughtful guidance helped me navigate both the challenges of doctoral research and the difficulties living abroad ... his encouragement gave me the confidence and had a lasting impact on my academic and personal growth."



Dr. Fenfen Huang (ChE PhD '09)
Strategic Market Development Manager, Sasol International Chemical

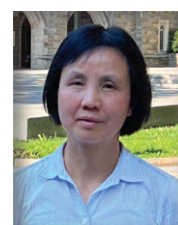
Transport of nonionic surfactants from micellar solutions below and above the critical micelle concentration to the clean air/water interface



Dr. Ashish Taneja (ChE PhD '07)
Technical Manager-Home Care, BASF India

Using surfactants to remobilize the interface of a rising bubble

Qing: "He was exceptionally kind ... he consistently explained complicated concepts in clear accessible language, making his classes genuinely enjoyable."



Dr. Qing Song (ChE PhD '04)
Senior Scientist, Unilever

2005

Ashish: "He was not just a professor for us but more like a fatherly figure and a friend ... he did not just guide me toward my PhD but also made me a better person."

Xiao Xiao: "He had an incredible ability to breakdown difficult fluid mechanics and surface phenomena into concepts that I could understand."

Thomas: "I would not be where I am today without his help."



Dr. Nikhil Suresh Bhole (ChE PhD '11)
Supplier Development Engineering Manager, SpaceX

2010

Nikhil: "He possessed a brilliant mind, but what made him unforgettable was his genuine heart and care for his students."



Dr. Xiao Xiao Chen (ChE PhD '14)
Principal Scientist, DSM-Firmenich



Dr. Thomas Leary (ChE PhD '14)
Experimental Physicist, ExxonMobil



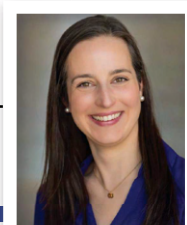
Dr. Nima Sharifi Mood (ChE PhD '14)
ML Research Scientist, Meta

Nima: "He shaped the way I learned to think as a scientist - questioning assumptions, examining problems from first principles, and continuing to probe until the underlying physics was truly understood."

2015

Lab on a chip: Microfluidic geometries for microbead assay screening of complex biomolecule interactions and their hydrodynamic and mass transport properties

Diffusiophoretic motion and active colloidal systems and their interactions with nearby solid boundaries.



Prof. Elizabeth Knapp (ChE PhD '15)
St. Thomas Aquinas College

Liz: "He was always ready to tackle a problem with a Coke in his hand and a smile on his face ... he was one of the most influential people in my career and what I learned from him will guide me for years to come ..."

Aggregation dynamics of micron and submicron particles at fluid/fluid interfaces



Dr. Archit Dani (ChE PhD '17)
Supplier Quality Manager, Intel Corporation

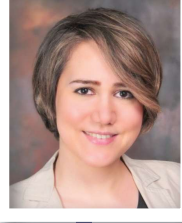
Archit: "Beneath his warm personality, he was a meticulous scientist committed to scrutinizing every little detail and ensuring only highest quality research got published ... his love for

Coca Cola and popular response on the phone 'I am on the George Washington Bridge' are among priceless memories etched in my mind."



Dr. Ali Mozaffari (ChE PhD '17)
Scientific Software Developer, Cadence Design Systems

Ali: "I will always remember his deep scientific curiosity, the care and thoughtfulness he brought to research discussions, and the important role he played in my development as a scientist."



Dr. Setareh Manafirasi (ChE PhD '18)
Business System Manager, Power Service Group

Setareh: "My memories of Charles: His down-to-earth character, the way he would sit on his knees to answer a question, the casual way he dressed, his stumbling voice during presentations, the trophy on his desk that said 'Champion of Hide and Seek', and the endless support."



Charles Maldarelli (cont'd)

Hao: "My first AIChE meeting presentation, I was so nervous ... Charles spent 3 hours help me go through the presentation..."

2020

Eco-friendly surfactants for remediation of maritime oil spills



Dr. Hao Zhou (ChE PhD '20)
Associate Expert, L'Oreal China

Dynamics and phase behavior of mixed antibody-exipient adsorption at the air/water interface

Ankit: "He was so much more than my PhD co-advisor and BMS collaborator - he was a true cornerstone of my scientific journey"



Dr. Ankit Kanthe (ChE PhD '21)
Principal Scientist, Bristol Myers Squibb

Yu: "During COVID-19 pandemic ... I will never forget his support, encouragement and kindness."

Boundary integral methods for electro-deformation and coalescence of surfactant covered droplets



Dr. Yu Han (ChE PhD '22)
Software Engineer, Walmart Global Tech

Moving drops and particles driven by phoretic and surface tension forces



Dr. Subramaniam Chembai Ganesh (ChE PhD '24)
Senior Mechanical Engineer, ASML

Transport model for "solid with infused reactive liquid" carbon capture technology



CG: "...with Charles, it seemed we were tackling problems together every step of the way..."

Surabh: "He did not believe in group meetings - I only remember one - we gathered around a few boxes of pizza ... instead of discussing research ended up sharing stories - probably the best group meeting I ever had ... that was him, informal, genuine, and always more interested in people than in schedules."

High-affinity lanthanide-binding peptides for rare earth element separation



Dr. Surabh KT (ChE PhD '26)
Postdoctoral Researcher, CCNY

Nanoparticle stabilized interfaces for foams and emulsions



Dr. Luis Ortuno Macias (ChE PhD '25)
Scientific Advisor, Eli Lilly and Company

Pedro: "He was an incredible person, in every sense of the word ... I have met few people in my life who have shined as bright as he did."



Dr. Pedro Bertolini (ChE PhD '24)
Chemical Engineer, Sora Fuel

2025

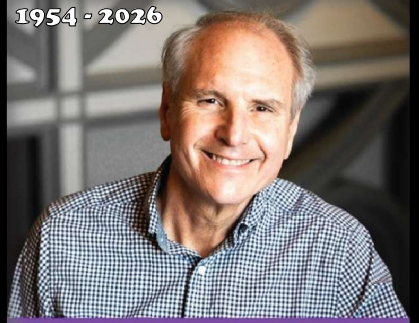
Prof. Nicole Donovan (ChE PhD '25)
Manhattan University

Luis: "He was the main reason I pursued my PhD - to this day, I still think I might not have taken the step without him ... I will always be grateful to him."



Nicole: "Once I asked him if he had ever considered a different career path ... he laughed ... 'No, of course not, I was made for this!' ... anyone who has learned from him knows this is true ... he was an incredible teacher, mentor and friend who will be dearly missed."

1954 - 2026



Prof. Charles Maldarelli



PhD students (l-to-r) Jonathan Fey (4th year), Nooshin Sadat Ayati (5th year), Barbara Stewart Palomo (2nd year), and Sellene Concha Carrasco (3rd year) mourn the passing of Prof. Charles Maldarelli, their PhD advisor and co-advisor. They will continue his legacy by advancing their understanding of interfacial phenomena and carrying forth Charles's love of life, passion for research, and his famous love of Coca Cola. His guidance will stay with them always.



Charles Maldarelli possessed a brilliant intellect motivated by curiosity, and at the same time was extremely kind and generous. He made major contributions to his fields of study and in his teaching of engineering science. While these are hard to replace, we will miss most his friendship and devotion to others: Charles was steadfast and selfless in his support for CCNY students and colleagues in both ChE and the Levich Institute. Over his remarkable 45 years at CCNY, Charles touched thousands of students and colleagues, and we were deeply moved by the outpouring of tributes from around the world upon his passing. From these, a clear message emerges that Charles spent his days imparting a love of learning along with a profound generosity of spirit. We will work to emulate those wonderful qualities as we keep the memory of Charles, his life, and his contributions forever fresh in the Department and Institute. —Jeff Morris, Director of the Levich Institute

Charles Maldarelli and the ChE Community

Thank you for sharing your memories with us!



You will be missed. Rest in peace, Charles!