




OBITUARY

NEW DIVISION CHAIRS

Andrew Lange, the Goldberger Professor of Physics, has been tapped as the new chair of the Division of Physics, Mathematics and Astronomy. Lange has been at Caltech since 1994, developing experiments to study the early universe.

Richard Murray (BS '85), the Everhart Professor of Control and Dynamical Systems and director of Information Science and Technology, is now the interim chair of the Division of Engineering and Applied Science. Having served as the chair from 2000 to 2005, Murray will hold the position until the next division chair is found. 

PHILIP G. SAFFMAN

1931-2008

Philip Geoffrey Saffman, an influential teacher and noted researcher in fluid mechanics, died peacefully after a long illness on Sunday, August 17, in Pasadena. He was 77 years old.

Saffman, the Theodore von Kármán Professor of Applied Mathematics and Aeronautics, Emeritus, studied vortex instability and the dynamics of arrays of vortices. In particular, he looked into the phenomenon of viscous fingering, which became known as the Saffman-Taylor instability. This occurs when a low-viscosity fluid is injected into a higher-viscosity fluid.

His work with vortices also led him to a new mathematical analysis of the wake turbulence caused by jets as they take off, resulting in a theory describing the conditions behind several aircraft accidents.

"Saffman was one of the leading figures in modern fluid mechanics," said Dan Meiron, the Jones Professor of Applied and Computational Mathematics and Computer Science. "His research had an impact in almost every part of the field." A prolific scholar with a dry sense of humor, he was able to focus on the essence of a problem and explain its complex results in a simple way, Meiron said.

Saffman even formed an unlikely collaboration with his neighbor, Rud-

dock Professor of Biology and Nobel Laureate Max Delbrück. Delbrück was studying the diffusion of protein and lipid molecules in biological membranes, and he would walk around the corner to Saffman's house for ideas. In 1975, the two scientists from disparate fields published a paper, "Brownian Motion in Biological Membranes," that remains well cited today.

Born in Leeds, England, Saffman received his BA, MA, and PhD from the University of Cambridge. In 1964 he accepted Caltech's appointment as a full professor in fluid mechanics within the Division of Engineering and Applied Science. He was named von Kármán Professor in 1995.

He was a Fellow of the American Academy of Arts and Sciences and in 1988 was elected a Fellow of the Royal Society, England's premiere scientific organization. He also received the Otto Laporte Award from the American Physical Society.

Saffman served as associate editor for both the *Journal of Fluid Mechanics and Physical Review Letters* and was most recently an editorial board member for the journal *Studies in Applied Mathematics*.

Saffman is survived by his wife, Ruth; children Louise, Mark, and Emma; and grandchildren Timothy, Gregory, Rae (née Sarah), Jenny, Nadine, Aaron, Miriam, and Alexandra. —JW 