

Jon Mathews

1932-1979

Jon Mathews, professor of theoretical physics, was lost at sea in December 1979 during a sailing trip around the world with his wife, Jean, in the 34-foot sloop Drambuie II. A memorial service was held at Caltech on October 30, at which tributes were paid by colleagues, friends, and his son Richard. Below is an adaptation of remarks made on that occasion by Robert Walker, professor of physics and executive officer for physics.

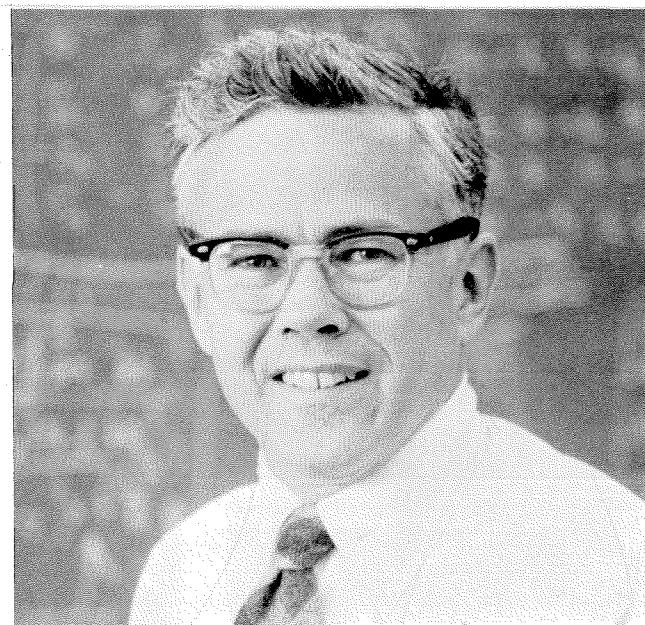
Jon Mathews had a long association with Caltech, beginning in 1953 when he came here as a graduate student and continuing as a faculty member after 1957. Because he was not a specialist but had wide interests and knowledge in a number of fields, he was able to fill faculty roles that are now difficult to fill in his absence. He is greatly missed by his colleagues and friends.

Jon was not like most of the other people on the physics faculty at Caltech in his motivations and his approach to science. He had great versatility — as do some of the others — but I think his most outstanding characteristic was that he was a scholar, and his scientific motivations stemmed from that. In *The Canterbury Tales*, Chaucer describes the various characters traveling together on a pilgrimage to Canterbury. Among them was a scholar, about whom he said:

A Clerk ther was of Oxenford also,
That un-to logik hadde longe y-go. . . .
Of studie took he most cure and most hede.
Noght o word spak he more than was nede,
And that was seyd in forme and reverence,
And short and quik, and ful of hy sentence,
Souninge in moral vertu was his speche,
And gladly wolde he lerne, and gladly teche.

I think the last line describes Jon particularly well. What really interested him was learning a new subject, which he did with great intensity and remarkable intellectual power, but he was never so involved with his own long-range research that he was unwilling to be diverted and give attention to a new problem — provided you could get him interested. Then he would be of great help.

The best example of my association with him occurred some years ago when I found a theoretical prediction of a surprising experimental result that my students had just observed. This prediction was in a preprint of a theory paper in which the quark model of hadrons was applied to pion photoproduction. I struggled for a few days to try to understand the theory, but without success, so I went to Jon with the experimental results in one hand and the theoretical preprint in the other. Luckily, I succeeded in



getting him interested. In a week or two he had understood all about the theory, worked out a simpler and far more elegant method of calculation, and checked all the results. He then explained it to me in a way that was easy to understand.

In addition to teaching his colleagues, as the story of the solving of my problem illustrates, Jon was one of our most valued teachers of students. First of all, he was valued by the executive officer, namely me, who has the task of finding teachers for all of the physics courses. Jon was willing and able to teach a wide variety of courses, and professors with those qualities are a great asset. More important, he was valued by the students because of his well-prepared and substantive courses. Several times I had self-appointed delegations of students come to me with requests that Jon be assigned to some course that they wished to take in the following year.

Before he left on his trip, I asked Jon if he would be willing to teach our graduate course in relativity during the year after his return. With some trepidation he agreed and said he would take along for study the big, heavy black book *Gravitation* by Misner, Thorne, and Wheeler. But, he added, "if I get into trouble, that's going to be the first thing thrown overboard."

Sometime around 1963, Jon and I wrote a book together, *Mathematical Methods of Physics*. He was a great co-author, and we also had a fine typist. So writing the book was not a pain as it is supposed to be; it was actually enjoyable. Not only that, I learned a lot from Jon in the process.

In conclusion, I want to read a cablegram from two people who would certainly have attended this memorial service if they were not far away in South Africa: "In Kiswahili, which Jon learned at Pasadena City College, there is a saying that the wealth of a country is in its people. Jon exemplified that. The more of a man is shining spirit, the more of him lives beyond the grave. From the shore of the Indian Ocean, which claimed him, we salute him.

(Signed) Chris Engelbrecht, Jon's first PhD, and Ned Munger, tennis buddy." □