

Selected Comments and Stories
Submitted by Students of Professor Thomas Kailath

Working with Tom was invaluable preparation for research and teaching in a broad range of areas in systems and signals. Having done a thesis in linear systems around the time that might be called Tom's "innovations heydays," his recommendation and advice were important factors in my landing a late-opening faculty position at Princeton in 1974. I can't imagine a bigger influence, since Princeton has turned out to be the place where my professional and personal life flourished.

— *Bradley Dickinson*

I work in R&D on algorithms for seismic signal processing, particularly: high-resolution processing, signal enhancement, dereverberation, and parameter estimation. The excitement and enthusiasm with which I tackle my research problems have certainly been influenced by my interaction with Professor Kailath.

— *Mohamed Hadidi*

I have had the good fortune to spend a few extraordinary months with Professor Kailath in India, at the Indian Institute of Science, Bangalore. It is fair to say that my second Indian trip (1994 December–1995 January) was the nicest and most rewarding journey that I have ever done in my entire life. I am very thankful to Professor Kailath for this.

— *Tibor Boros*

TK asked me to read and improve upon Dan Lee's thesis in one week, when I had just arrived at Stanford and didn't know lattice filters from step-ladders. I thought I was in for a rough time at Stanford, but I wound up having the best time of my life.

— *Sailesh Rao*

Sensor array signal processing was really the main focus of all those years of toil. Professor Kailath had a significant influence on my work, especially in the support he provided for an area of research that was at the time not in the main stream of his efforts. He clearly had the foresight to see where the technology might be able to go if given the right encouragement, encouragement which he provided. Neither I nor the technology would be where it is today without his support.

— *Richard Roy*

By far the most important skill I learned from Professor Kailath is the ability to think about an unfamiliar problem in an unfamiliar area, and to drill down until good research results were being produced. I did this for the first time when TK and I both embarked on an adventure together to learn about VLSI. While the specific knowledge about VLSI or systolic arrays has not been of much value, the research style I learned from TK's example has been of immense value to me since.

— *H. V. Jagadish*

The following quotation from the preface of his classic Linear Systems book (1980) may best convey his influence on my academic life: "I belong to the school that holds ideas and exposition to be more important than 'mere' results."

— *Ali Sayed*

My work has been deeply influenced by Professor Kailath's work. A glance at my biosketch will show that I am still busying myself with realization theory, estimation, stochastics and other more or less tangent problems. My recent interest in delay systems stems from the fact that "there is a Riccati equation in it" ! My work in periodic systems is a spinoff of multivariable system theory!

— Erik Verriest

Professor Kailath has influenced my work and life in many essential ways. It was from him that I first learned what research meant. Certain aspects of his style resonated with my own instincts, and decisively shaped my approach to research. Most striking to me are (and continue to be):

- his interest in connections, in how things fit together and how they can be reconciled;
- his attention to what I might call thematic research narrative – constantly updated and elaborated as he and his collaborators uncover and understand more – telling a coherent, logical story of what he knows, where it came from, how it connects to other things, what it is good for;
- arising from these concerns, his continual flow of questions, looking for answers, clarifications, refinements;
- guiding the whole process, an aesthetic sense that allows him to extract the good, satisfying answers from among those that are merely correct;
- his love of books, symbolized by the full shelves that were for me the most impressive aspect of his office, extending from floor to ceiling like great wings behind his chair.

All outstanding researchers must have these traits to some degree, but in twenty years of observation, I have not seen anyone to match Tom Kailath.

— George (Reji) Verghese

Interactions with Tom has strengthened my conviction that an academic career can be best enriched by hard-working, ever expanding research horizon, and many others. Perhaps the most important is always presenting your idea in simplest possible language.

Tom has provided the most critical encouragement, especially during my years as a junior faculty.

— Sun Yuan Kung

System identification, signal processing, fast algorithms, control and their applications to manufacturing. I learned thinking process and work ethics from Prof. Kailath, which have stayed and will stay with me.

— Young Man Cho

On a Lighter Side . . .

There are many "TK stories" that one can cull from a three-year stint at Stanford. Let me recount just one vignette. Tom was lecturing in a video classroom, with the spotlights and cameras on him. As he tried to reach over and pick up some notes, the microphone cord held him tightly back. "Gee," he said, almost to himself, "they sure keep you on a tight leash here," at which the class broke out into laughter, with Tom joining in.

Evidently no leash or obstacle can hold you back. At sixty years, it's time for some unfettered celebration: Happy Birthday, Tom!

— *George (Reji) Verghese*

In my first summer (1984) TK told me the following: "There are 168 hours in a week; so what have you been doing?"

— *Vwani Roychowdhury*

I remember in my first graduate class at Stanford a student asked about a reference on some topic Tom was presenting. Without notes, Tom proceeded to cite a dozen references including the page numbers of these references. I was always amazed in Tom's apparent photographic memory.

Later when I was reviewing a graduate course taught by Tom, he asked me on a Friday if I would cover his course the following week while he was out of town. This was a shock to me because I had never given a technical presentation in my life and was not the teaching assistant for this graduate course. Besides there were at least two professors sitting in on these lectures. It turned out I really enjoyed giving the following week's lecture and this got me to think about an academic career. Later Tom helped me get several offers from various universities including UCLA where I taught for 15 years.

— *Jim Omura*

It may be a bit hoky to say this, but in a way, I always considered Professor Kailath as my "scientific father". I learned from him the dedication to a problem (and solution), how to ask ever more questions, and how to try to present things always as simple as possible. If I picked up a bad habit, it is "collecting books".

— *Erik Verriest*

One Saturday afternoon, I was working in my office, Durand 110 with a couple of officemates. To refresh my mind, I was playing a computer game with those 110 guys for a very BRIEF time. Dr. Kailath came in and saw us gathering together in front of computer without realizing what we were doing. Dr. Kailath thought that we were working together on a research problem and told us that we should keep doing what we were doing in the future. Some people may think that it is sad to work on Saturday but Durand 110 used to be full even on Christmas Eve.

— *Young Man Cho*

As a graduate student in 1984, I was planning to attend a conference in Bangalore, India. Funding was provided by the NSF to a selected 20 in the US, of which I happened to be a fortunate one. The only catch in realizing this exotic trip/dream vacation was that India had no diplomatic relations with Israel, of which I am a citizen. Hence, securing a visa became an almost insurmountable problem.

As the day of the conference approached without any response from the Indian consulate in SF I became more and more frantic. After a wait of a few months, and personal intervention of a former Undersecretary of Finance in India with his friends still in office, I finally received, a day before the conference were to begin, a phone confirmation from my contact in India that the visa has been approved. My joy turned out to be premature. By Friday noon, the conference had begun, but still the consulate has not received the confirmation telex from India. My chances to