

Stanford



Thomas Kailath

Hitachi America Professor in the School of Engineering, Emeritus
Electrical Engineering

Bio

BIO

Thomas Kailath obtained a B.E.(Telecom) degree from the College of Engineering in Pune, India, in 1956 and M.S. (1959) and Sc.D. (1961) degrees in Electrical Engineering from the Massachusetts Institute of Technology.

After a year at the Jet Propulsion Laboratories, he joined Stanford University in 1963 as an Associate Professor of Electrical Engineering, was promoted to Professor in 1968, and named to the Hitachi America Chair in 1988. He assumed Emeritus status in June 2001. His research has spanned a large number of engineering and mathematical disciplines, and he has mentored over a hundred doctoral and postdoctoral students. Their joint efforts have led to over 300 journal papers, several of which have received outstanding paper prizes; they have also led to a dozen patents and to several books and monographs. He has also co-founded and served as a director of several private and public high-technology companies. and has been

He is a fellow of the IEEE and a member of the US National Academy of Engineering, the US National Academy of Sciences, the American Academy of Arts and Sciences, the Indian National Academy of Engineering, the Academy of Sciences of the Developing World and the Royal Spanish Academy of Engineering. In 2006, he was inducted into the Silicon Valley Engineering Hall of Fame.

Other major honors include several IEEE medals and prizes, including the 2007 Medal of Honor in 2007, Guggenheim and Churchill Fellowships, and honorary degrees from universities in Sweden, Scotland, Spain and France.

ACADEMIC APPOINTMENTS

- Professor Emeritus, Electrical Engineering

HONORS AND AWARDS

- Medal of Honor, IEEE (2007)
- Hall of Fame, Silicon Valley Engineering (2006)

PROFESSIONAL EDUCATION

- ScD, MIT , Electrical Engineering (1961)
- MS, MIT , Electrical Engineering (1959)
- BE, College of Engineering in Pune, India , Telecom (1956)

LINKS

- <https://web.stanford.edu/~tkailath>: <https://web.stanford.edu/~tkailath>

Publications

PUBLICATIONS

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- **Maximum likelihood detection in Gaussian channels can have polynomial complexity** *6th IEEE Circuits and Systems Symposium on Emerging Technologies*
KAILATH, T.
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- **Temperature cycling and control system for photosensitive materials processing** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*
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- **A nonlinear estimation algorithm and its optical implementation for target tracking in clutter environment** *JAPANESE JOURNAL OF APPLIED PHYSICS PART I-REGULAR PAPERS BRIEF COMMUNICATIONS & REVIEW PAPERS*
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 - **Diagonal pivoting for partially reconstructible Cauchy-like matrices, with applications to Toeplitz-like linear equations and to boundary rational matrix interpolation problems** *5th Conference of the International-Linear-Algebra-Society (ILAS)*
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Hassibi, B., KAILATH, T.
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 - **DISTORTION COMPENSATION FOR ACCURATE OVERLAY IN LITHOGRAPHY OF QUASI-PERIODIC PATTERNS** *Integrated Circuit Metrology, Inspection, and Process Control IX Conference*
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