

# 1991 Symposium Steering Committee

## STEERING COMMITTEE



Peter Staecker  
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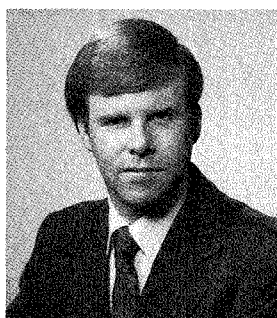


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Vice-Chairman

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Co-Chairman



Glenn Thoren  
Co-Chairman



John Heaton

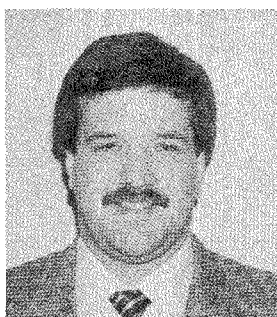


Dave Meharry

## OPEN FORUM



Ross Hicks



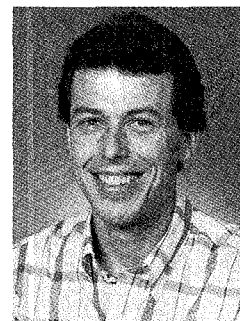
Geoff Dawe

## STUDENT PROGRAM



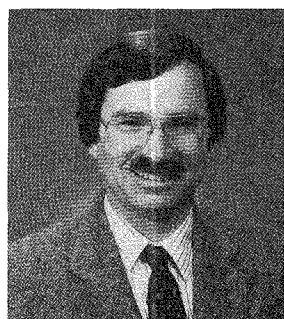
Peter Rizzi

## WORKSHOPS

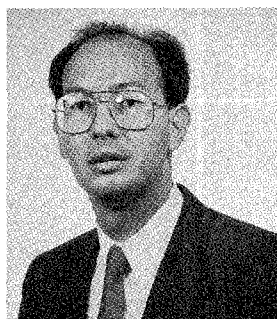


Larry Kushner

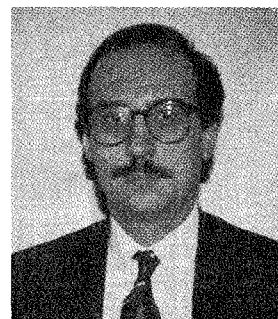
## LOCAL ARRANGEMENTS



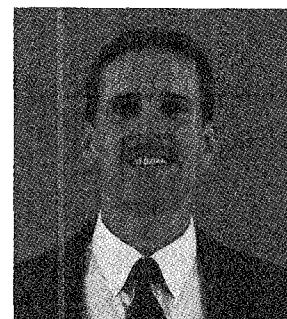
John Putnam  
Chairman



Frank Occhiuti



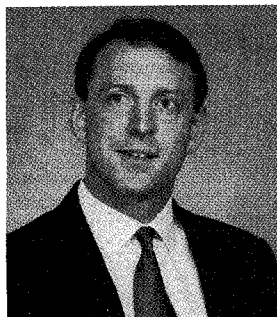
Tom Costas



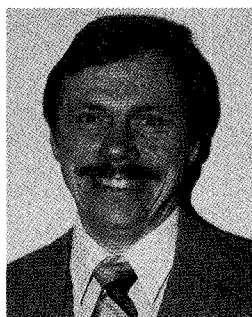
Bob Donahue

# 1991 Symposium Steering Committee

## LOCAL ARRANGEMENTS



John Guenard



Larry Pihl



Mikelle Carr

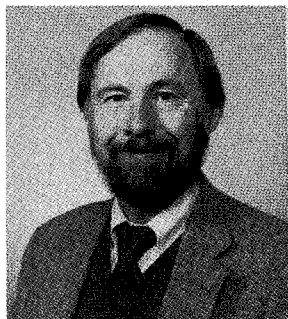


Susan Staecker

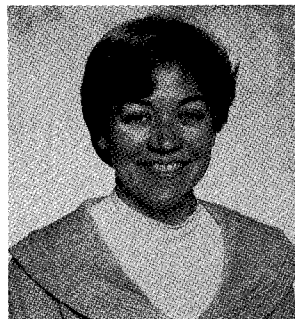
## SYMPOSIUM DIGEST



George Heiter  
Editor



Dick Laton

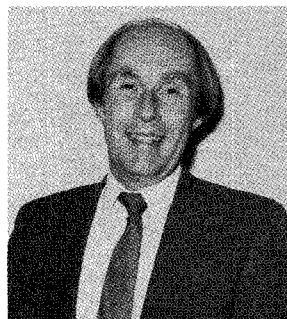


Karen Leonard

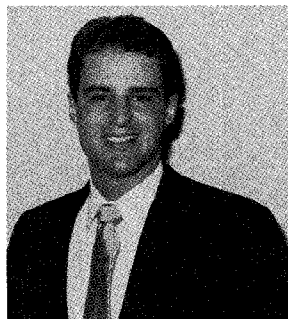


Joe White

## PUBLICITY



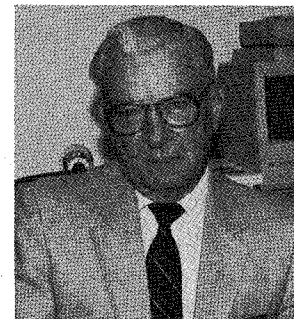
Howie Vogel  
Co-Chairman



Ralph Marrone  
Co-Chairman



Steve Temple  
Co-Chairman



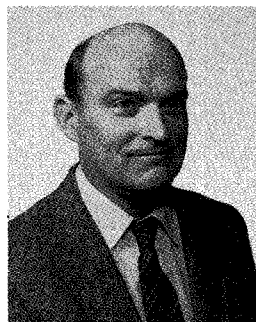
Art Blaisdell  
Co-Chairman

## FINANCE

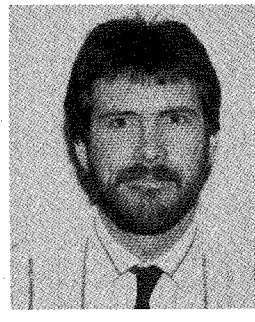
## MTT TRANSACTIONS SPECIAL ISSUE



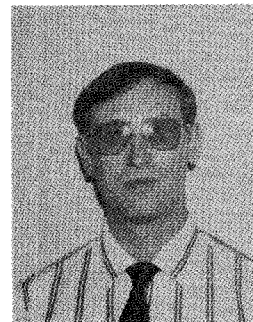
Zvi Galani  
Editor



Frank O'Hara



Joe Nizko



Cliff Drubin

## REGISTRATION

# 1991 Symposium Steering Committee

— RAD LAB CELEBRATION —

HISTORICAL EXHIBIT

— EXHIBITION —



Ted Saad  
Chairman



Harlan Howe



Roger Sudbury



Howard Ellowitz

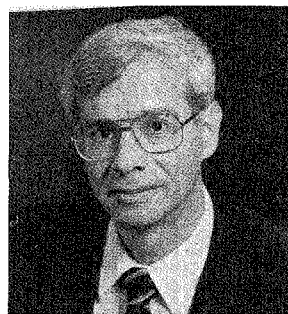
## CONFERENCE MGT.



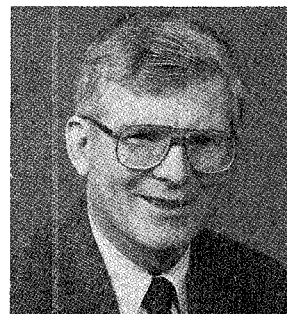
Margaret Whicker



Rick Gold  
MMWMC



Harry Cronson  
ARFTG



Tom Perkins  
Boston MTT-S Chapter

## LIAISONS



Steering Committee plowing troubled waters





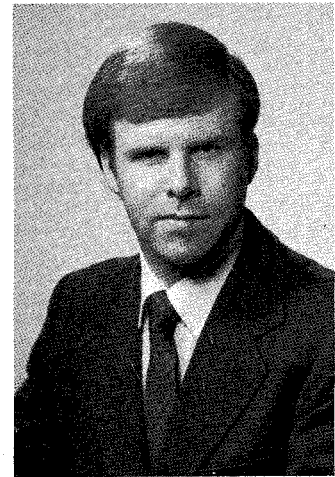
Dan Massé

# **MESSAGE**

## **from the**

### **Technical Program**

### **Committee Co-Chairmen**



Glenn Thoren

A record number of papers were submitted to the Technical Program Committee this year: nearly seven hundred, twenty seven percent more than last year and fifty three percent more than in 1983, for the last Boston Symposium. More than half of the papers came from outside the United States, confirming that our conference is truly international. The members of the Technical Program Committee had a difficult task to select the three hundred and four papers which will be presented in forty four sessions. Some worthwhile papers were not chosen because of the limited conference schedule. We ask for the understanding of the authors.

In addition, six panel sessions, held during lunch periods, Tuesday to Thursday, will permit a free exchange of ideas on hot topics of today. Fourteen workshops, on Monday and Friday, will cover special areas of technical interest in a format which encourages participation by all attendees.

Three innovations to the Technical Program are being introduced this year:

The Open Forum papers have been subjected to the same rigorous reviews as the regular ones and their number has been limited. They will be presented in two sessions and at each, an invited speaker will set the stage with an opening lecture.

The European Invited Speakers will give their contribution in the session related to their subject rather than in a special session. This year they will concentrate on non-military applications of microwaves, a topic which should be of interest to all. They are the lead paper presenters in sessions G, FF and KK.

The finals of the Student Paper Competition will be held during the Symposium. Professor Peter Rizzi, with the help of the Technical Program Committee, has selected eight papers from university students which will be presented in a special session on Tuesday. The three best papers, selected by a panel, will be awarded cash prizes to be given during the Awards Banquet on Wednesday evening.

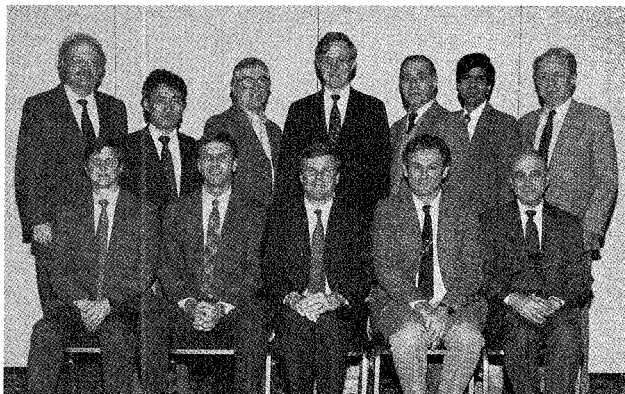
To help us celebrate the Radiation Laboratory Anniversary, we will be honored to welcome among us many alumni of that organization. Ted Saad, himself an alumnus, has put together a special technical session where three distinguished speakers will recreate for us the microwave world of 1941-1945.

We hope that you will agree that the 1991 MTT-S International Symposium in Boston will set another milestone of quality and relevance. This could not have been possible without the hard work of the authors and the dedication of the members of the Technical Program Committee who, after reading an average of twenty five papers each, travelled to Boston on a cold January weekend, braving a snow storm, for the pleasure of working most of the Sunday to define the Technical Sessions. Thanks are due also to Larry Kushner who organized the workshops, to Ross Hicks and Geoff Dawe who coordinated the Open Forum, and to John Heaton and Dave Meharry who were responsible for the Panel and Special Sessions. We owe a special note of gratitude to Tatsuo Itoh, Randy Lehmann and Dave Zimmermann of the Dallas TPC for their assistance in the smooth running of the Boston Meeting.

Dan Massé

Glenn Thoren

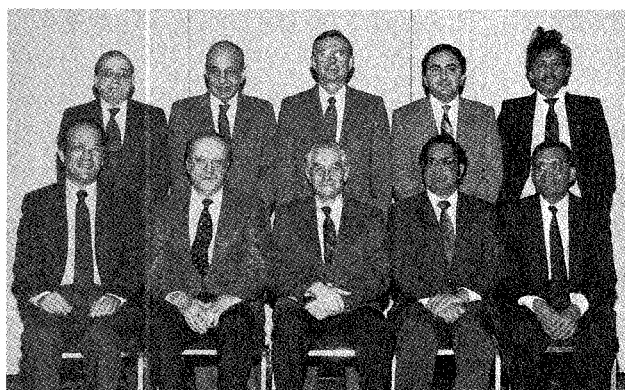
# Technical Program Committee



Front Row (l-r): D. Zimmerman, R. Lehmann,  
G. Thoren, R. Hicks, D. Massé  
Standing (l-r): A. Rosen, T. Itoh, K. Carr, P. Staecker,  
P. Rizzi, R. Bansal, A. Vander Vorst



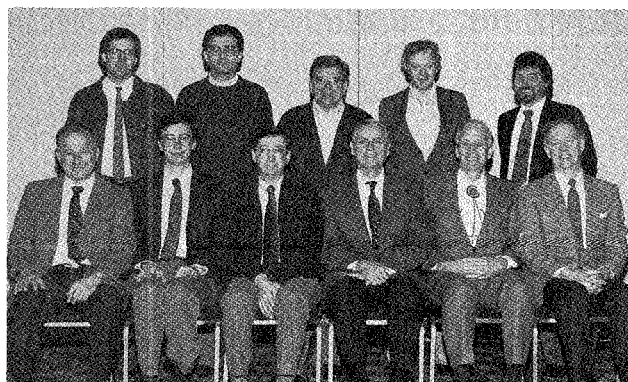
Front Row (l-r): B.R. Allen, D. Meharry, A. Pavio,  
H.L. Hung, N. Camilleri  
Standing (l-r): J. Heaton, R.M. Malbon, C. Krowne,  
M. Cohn, S.S. Bharj, Y.C. Shih



Front Row (l-r): H. Fetterman, M. Dydyk, A. Oliner,  
A.K. Sharma, K.K. Agarwal  
Standing (l-r): P. Meier, J.J. Taub, J.C. Wiltse,  
M. Matloubian, M.N. Afsar



Front Row (l-r): H.M. Cronson, S.F. Adam,  
M.A. Maury, Jr., R.D. Pollard, J.T. Barr  
Standing (l-r): D. Poulin, D.W. Reid, J. Goel,  
L.J. Kushner, R.E. Ham

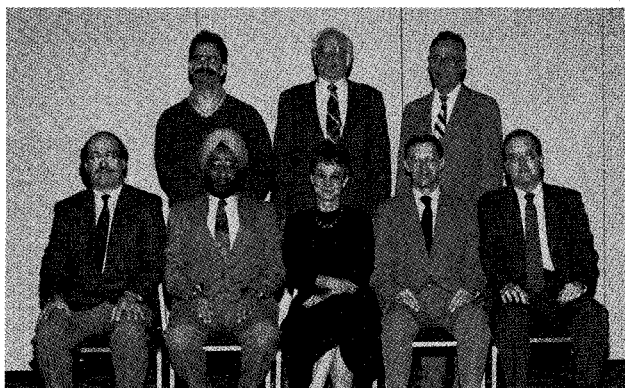


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J. Dayton Adams, R. Sparks, H.G. Oltman, W.R. Curtice  
Standing (l-r): M.B. Steer, M. Eron, R. Carter,  
A. Platzker, J.M. Golio



Front Row (l-r): R. Laton, C. Holmes, M. Calcaterra,  
R. Jansen, K.C. Gupta, J.B. Horton  
Standing (l-r): K. Tomiyasu, F. Ivanek, G. Heiter,  
C.E. Mahle, K.D. Breuer

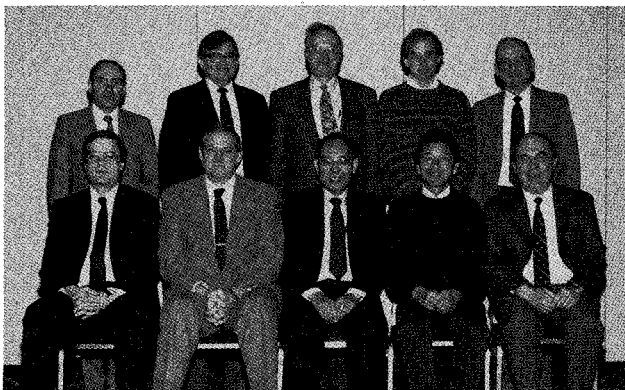
# Technical Program Committee



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Standing (l-r): M. Ciminera, C. Buntschuh, H. Howe, Jr.



Front Row (l-r): K.B. Bhasin, M. Nisenoff, E.F. Belohoubek, B. Spielman, A. Fathy  
Standing (l-r): N. Dietrich, H. Ogawa, A. Paoella, H. Sobol, P. Herczfeld



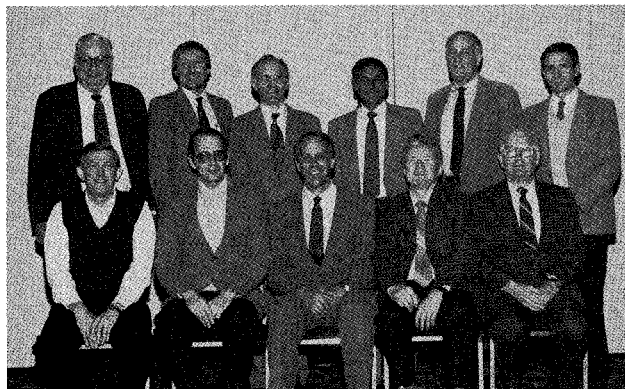
Front Row (l-r): P.M. Smith, E. Niehenke, R.S. Kagiwada, J. Kuno, E.J. Crescenzi, Jr.  
Standing (l-r): J. Calviello, R. Eisenhart, J. White, D. Peterson, C.T. Rucker



Front Row (l-r): G. Holz, J. Pavio, B. Berson, J.C. Rautio, J. Mink  
Standing (l-r): D. Dodson, F. Rosenbaum, D. Maki, D. Power, F. K. Schwering



Front Row (l-r): A.E. Williams, K. Zaki, G. Matthaei, L. Katehi, A. Atia, D. Neuf  
Standing (l-r): J. Whelehan, Jr., J.B.Y. Tsui, D. Wait, Z. Galani, M.S. Gupta



Front Row (l-r): W.E. Hord, D. Webb, J.M. Owens, E. Schloemann, R.A. Moore  
Standing (l-r): B. McAvoy, J. Fiedziuszko, J. Douglas Adam, C.M. Kudsia, H.C. Bell, R.R. Bonetti

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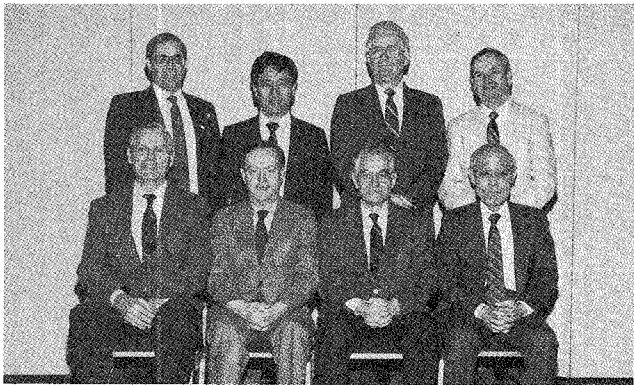
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Eliot D. Cohen	Branka S. Jokanovic	Jorg E. Raue
E. James Crescenzi, Jr.	Reynold S. Kagiwada	Peter W. Staecker
Al L. Estes	Stephen A. Maas	Steven J. Temple
Zvi Galani	Mario A. Maury, Jr.	James C. Wiltse

## Immediate Past Presidents

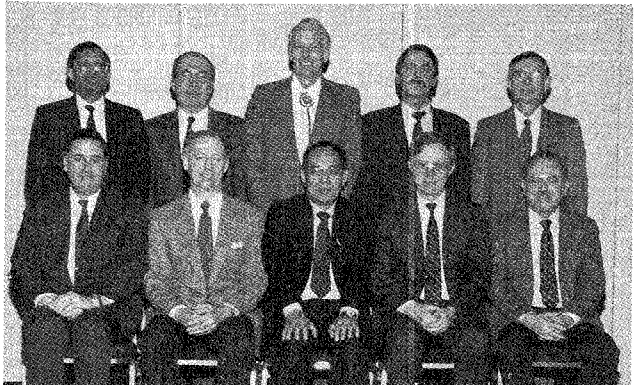
1990 .....	Tatsuo Itoh
1989 .....	Vladimir G. Gelnovatch
1988 .....	Barry E. Spielman

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A. C. Beck	Arthur A. Oliner	Kiyo Tomiyasu
Seymour B. Cohn	Theodore S. Saad	Leo Young



Front Row (l-r): R. Sparks, F. Ivanek, A.A. Oliner, K. Tomiyasu  
Standing (l-r): B.E. Spielman, T. Itoh, R.A. Moore, Z. Galani



Front Row (l-r): E.D. Cohen, W. Curtice, R.S. Kagiwada, P.W. Staecker, M.A. Maury, Jr.  
Standing (l-r): K.K. Agarwal, E.J. Crescenzi, Jr., H.G. Oltman, Jr., R.H. Jansen, J.C. Wiltse