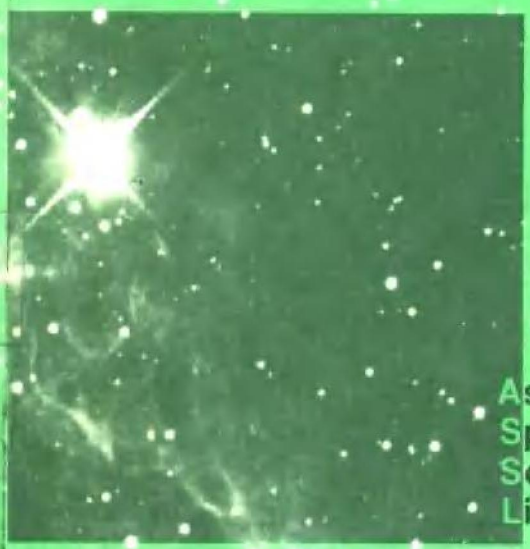
# Submillimetre Astronomy

G. D. Watt
A. S. Webster
(editors)



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# SUBMILLIMETRE ASTRONOMY

PROCEEDINGS OF THE KONA SYMPOSIUM ON
MILLIMETRE AND SUBMILLIMETRE ASTRONOMY,
HELD AT KONA, HAWAII, OCTOBER 3–6, 1988

edited by

GRAEME D. WATT and ADRIAN S. WEBSTER
*Joint Astronomy Centre, Hilo, Hawaii, U.S.A.*

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# Proceedings of the Kona Symposium on

# Millimetre and Submillimetre Astronomy

# held at Kona, Hawaii on October 3-6, 1988

We therefore recommend again and again, to the curious investigators of the stars to whom, when our lives are over, these observations are entrusted, that they, mindful of our advice, apply themselves to the undertaking of these observations vigorously. And for them we desire and pray for all good luck, especially that they not be deprived of this coveted spectacle by the unfortunate obscuration of cloudy heavens, and that the immensities of the celestial spheres, compelled to more precise boundaries, may at last yield to their glory and eternal fame.

Sir Edmond Halley, 1716.

Translation by David Fredrick from the Latin article in Philosophical Transactions of the Royal Society, 1716, No. 348, pages 454-455,460.

## Symposium Sponsors

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D.N.B.Hall, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA

R.E.Hills, Cavendish Laboratory, Cambridge, England, UK

T.G.Phillips, Caltech, Pasadena, California, USA

W.J.Welch, University of California, Berkeley, California, USA

## Local Organizing Committee

D.H.Beattie, Joint Astronomy Centre, Hilo, Hawaii, USA

Y.Boyce, Joint Astronomy Centre, Hilo, Hawaii, USA

R.C.Campbell, Joint Astronomy Centre, Hilo, Hawaii, USA

P.Ching, Joint Astronomy Centre, Hilo, Hawaii, USA

M.A.Johnston, Joint Astronomy Centre, Hilo, Hawaii, USA

W.Steiger, Caltech Submillimeter Observatory, Hilo, Hawaii, USA

A.S.Webster, Joint Astronomy Centre, Hilo, Hawaii, USA

C.G.Wynn-Williams, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA

# Introduction and Acknowledgements

In recent years the field of millimetre astronomy has blossomed and that of submillimetre astronomy has begun to be explored in earnest. The major topics that have initiated these drives have been the construction of large surface area, high surface accuracy telescopes designed for operation at wavelengths of less than 1mm, the development of extremely sensitive receivers utilizing both heterodyne and bolometric techniques to enable extremely faint signals to be detected to adequate confirmation within in reasonable integration times, and the construction of complex software code running on large mainframes or supercomputers for chemical and physical modelling of individual clouds and entire galaxies. It is a direct result of the developments and progress made in each of these specialized areas that led to the request for this Symposium.

The Symposium titled 'Millimetre and Submillimetre Astronomy' was intended primarily as an introduction for the astronomical community to the two new submillimetre telescopes now in operation on Mauna Kea, namely the James Clerk Maxwell Telescope (JCMT) and the Caltech Submillimeter Observatory (CSO).

The content was not aimed to clash with that of the Summer School held during June 1987 in Stirling, Scotland but the intention was rather that the two meetings should go hand in hand. The Stirling Proceedings are a more technical oriented reference while the current volume is a collection of observations and their reduced and deduced analyses. In order to avoid a little confusion, the Stirling proceedings are called 'Millimetre and Submillimetre Astronomy' while this volume is simply 'Submillimetre Astronomy'.

A great number of people attended the Symposium, probably because of the added attractions of sunshine, swimming, surfing, sunbathing, scuba-diving, etc. Many of them probably went home with aching limbs, over-cooked skin and several cuts and bruises from landing on sharp lava rocks. There is much to be said about holding a meeting in Hawaii even though a major difficulty for the organisers is in persuading the attendees to attend the talk sessions instead of wandering off to the beach or bar.

It is extremely difficult to thank everybody by name who assisted in some way with the smooth running of the events so a communal 'Thank You' is in order if you contributed in any way. More specifically, we must thank the Sponsors for their generous donations towards the costs of the Symposium. We are very grateful to the Management and Staff of the King Kamehameha Hotel in Kailua-Kona for hosting this rather large international gathering. Particular thanks to them for the Luau which served as our Symposium Banquet and was attended by a great many of our participants lured by the delicious food and excellent polynesian dancing displays as well as by the free bar.

The Hawaii Resorts Transportation Company deserve a vote of thanks for their supply of minibuses for the Mauna Kea excursion and for the Volcano Park trip. All but one of their buses made it to Mauna Kea! We also thank the Mauna Kea Support Service Staff for supplying snacks for the visitors at Hale Pohaku waiting while smaller groups were ferried up to the summit for lightning tours around both the CSO and the JCMT.

On a more technical note, thanks are extended to the Scientific Organising Committee for arranging such a varied and comprehensive schedule of talks and posters; to the Local Organising Committee for their enormous effort at dealing with the administration and finances and for the

many hours of office duty spent at the Hotel fielding strange questions from attendees about anything from astronomy to volcanoes to pineapples; and to the Local Assistance Team who ran the airport collection vehicles, provided assistance with the Mauna Kea trip, and were generally on hand during the entire time to cope with the plethora of 'odd jobs' that cropped up.

As Editors, we must thank all those who submitted a contribution for these Proceedings and must also apologise to you all for the late publication. It does take an enormous amount of time and effort to edit a volume like this especially when trying to maintain an operational telescope at the same time. A volume with 20 long contributions has got to be simpler to deal with than this one which has 114 short papers.

Most of you managed to get the camera-ready scripts in the correct format which saved us the task of having to retype items. Some of the extra pages were beautifully setup and typed by Donna Delorm (who secretly runs the JCMT single-handed!). Thanks Donna. The headings, indices, etc were set in LaTeX by GDW with necessary instruction and advice from Henry Matthews. We are particularly grateful to Paulette Ching for her dedication towards keeping the whole administrative and secretarial organisation in hand prior to the event.

The Organisers were very pleased with the presentations and seemed to be amazed at how smoothly the whole event ran. We hope that you were suitably impressed too and (should we ever get around to a follow up in a few years!) would be keen to venture off to Hawaii again.

And finally GDW wishes to personally thank ASW for getting him involved with this chaos and for actually getting his own contribution submitted!

**Aloha,**

Graeme D Watt

Adrian S Webster

September 27, 1989

LIST OF PARTICIPANTS

L. Avery, Herzberg Institute of Astrophysics, Ottawa, Ontario, Canada
J. Baars, Max-Planck-Institut für Radioastronomie, Bonn, West Germany
L. Baath, Onsala Space Observatory, Onsala, Sweden
M. Barsony, Leuschner Observatory, University of California, Berkeley, California, USA
F. Bash, Astronomy Department, University of Texas, Austin, Texas, USA
D.H. Beattie, Joint Astronomy Centre, Hilo, Hawaii, USA
E. Becklin, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
G. Bellaiche, CNES, Toulouse, France
G. Bernstein, Physics Department, University of California, Berkeley, California, USA
A. Betz, Space Sciences Laboratory, University of California, Berkeley, California, USA
J.H. Black, University of Arizona, Steward Observatory, Tucson, Arizona, USA
G. Blake, Caltech, Pasadena, California, USA
L. Blitz, Astronomy Program, University of Maryland, Maryland, USA
E. Bloemhof, Center for Astrophysics, Cambridge, Massachusetts, USA
A. Boehmar, JRW, California, USA
R. Boreiko, Space Sciences Laboratory, University of California, Berkeley, California, USA
D.R. Brock, Joint Astronomy Centre, Hilo, Hawaii, USA
R.L. Brown, NRAO, Charlottesville, Virginia, USA
J. Burnell, Royal Observatory, Edinburgh, Scotland, UK
H.M. Butner, Department of Astronomy, University of Texas, Austin, Texas, USA
T. Buttgenbach, Caltech, Pasadena, California, USA
J. Carr, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
M.M. Casali, Joint Astronomy Centre, Hilo, Hawaii, USA
H. Chen, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
G. Chin, NASA/Goddard Space Flight Center, Greenbelt, Maryland, USA
P. Ching, Joint Astronomy Centre, Hilo, Hawaii, USA
R. Chini, Max-Planck-Institut für Radioastronomie, Bonn, West Germany
C.R. Cordell, Joint Astronomy Centre, Hilo, Hawaii, USA
I.M. Coulson, Joint Astronomy Centre, Hilo, Hawaii, USA
T. Davidge, Canada-France-Hawaii Telescope Corporation, Kamuela, Hawaii, USA
J. Davidson, NASA/Ames Research Center, Moffett Field, California, USA
S. Davies, Electronic Engineering Laboratories, The University, Canterbury, England
J. Davis, Astronomy Department, University of Texas, Austin, Texas, USA
W.R.F. Dent, Royal Observatory, Edinburgh, Scotland, UK

R.L. Dickman, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA
W.D. Duncan, Joint Astronomy Centre, Hilo, Hawaii, USA
A. Emrich, Onsala Space Observatory, Onsala, Sweden
P. Encrenaz, Observatoire de Meudon, Meudon, France
N. Evans, Astronomy Department, University of Texas, Austin, Texas, USA
J.H. Fairclough, Joint Astronomy Centre, Hilo, Hawaii, USA
E. Falgarone, Caltech, Pasadena, California, USA
M. Fich, Department of Physics, University of Waterloo, Waterloo, Ontario, Canada
M.A. Frerking, JPL, Pasadena, California, USA
G. Fuller, Radio Astronomy Laboratory, University of California, Berkeley, California, USA
R.P. Garden, Department of Physics, University of California, California, USA
W.K. Gear, Royal Observatory, Edinburgh, Scotland, UK
R. Genzel, Max-Planck-Institut für Physik und Astrophysik, Garching bei München, West Germany
M.J. Griffin, Queen Mary College, Department of Physics, London, England, UK
T. Groesbeck, Caltech, Pasadena, California, USA
E. Grossman, Department of Astronomy, University of Texas, Austin, Texas, USA
D.N.B. Hall, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
J.P. Hamaker, Joint Astronomy Centre, Hilo, Hawaii, USA
J. Hamilton, Canada-France-Hawaii Telescope Corporation, Kamuela, Hawaii, USA
A. Harris, Max-Planck-Institut für Physik und Astrophysik, Garching bei München, West Germany
T.I. Hasegawa, Department of Astronomy, Saint Mary's University, Halifax, Nova Scotia, Canada
T. Hasegawa, University of Tokyo, Nobeyama, Minamisaku, Nagano, Japan
M. Hauschildt, Joint Astronomy Centre, Hilo, Hawaii, USA
M. Hayashi, Department of Astronomy, University of Tokyo, Tokyo, Japan
S. Hayashi, Joint Astronomy Centre, Hilo, Hawaii, USA
R. Hayward, Herzberg Institute of Astrophysics, Ottawa, Ontario, Canada
P. Hekman, Joint Astronomy Centre, Hilo, Hawaii, USA
R.H. Hildebrand, The Enrico Fermi Institute, University of Chicago, Chicago, Illinois, USA
R.E. Hills, Cavendish Laboratory, Cambridge, England, UK
J. Howe, Astronomy Department, University of Texas, Austin, Texas, USA
V.A. Hughes, Astronomy Group, Department of Physics, Queen's University, Kingston, Ontario, Canada
J. Inatani, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
W.M. Irvine, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA

M. Ishiguro, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
D. Jaffe, Astronomy Department, University of Texas, Austin, Texas, USA
P. Jaminet, Space Sciences Laboratory, University of California, Berkeley, California, USA
P.R. Jewell, NRAO, Tucson, Arizona, USA
L.E.B. Johansson, European Southern Observatory, Santiago, Chile
M.A. Johnston, Joint Astronomy Centre, Hilo, Hawaii, USA
P. Judge, Joint Institute for Laboratory Astrophysics, University of Colorado, Boulder, Colorado, USA
N. Kaifu, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
O. Kameya, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
J. Keene, Caltech, Pasadena, California, USA
J. Kenney, Owens Valley Radio Observatory, California, USA
E.R. Keto, Lawrence Livermore National Lab, University of California, Livermore, California, USA
G.R. Knapp, Department of Astrophysical Science, Princeton University, Princeton, New Jersey, USA
C. Koempe, Herzberg Institute of Astrophysics, Ottawa, Ontario, Canada
K. Krisciunas, Joint Astronomy Centre, Hilo, Hawaii, USA
S. Kulkarni, Caltech, Pasadena, California, USA
E. Lada, Astronomy Department, University of Texas, Austin, Texas, USA
N. Ladd, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, USA
S. Lamb, Department of Astronomy, University of Illinois, Urbana, Illinois, USA
W.D. Langer, Plasma Physics Laboratory, Princeton University, Princeton, New Jersey, USA
W. Latter, Steward Observatory, University of Arizona, Tucson, Arizona, USA
T.J. Lee, Royal Observatory, Edinburgh, Scotland, UK
T.H. Legg, Herzberg Institute of Astrophysics, Ottawa, Ontario, Canada
R. Leighton, Caltech, Pasadena, California, USA
C.A. Lindsey, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
D.C. Lis, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA
K.Y. Lo, Department of Astronomy, University of Illinois, Urbana, Illinois, USA
R. Lucas, Groupe d'Astrophysique, Observatoire de Grenoble, Saint-Martin d'Heres, France
J. Lugten, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
J. Luthe, Joint Astronomy Centre, Hilo, Hawaii, USA
J.M. MacLeod, Herzberg Institute of Astrophysics, Ottawa, Ontario, Canada
S. Madden, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA

J.G. Mangum, NRAO, Charlottesville, Virginia, USA
R.N. Martin, Steward Observatory, University of Arizona, Tucson, Arizona, USA
C. Masson, Caltech, Pasadena, California, USA
H.E. Matthews, Joint Astronomy Centre, Hilo, Hawaii, USA
J. Maute, Caltech Submillimeter Observatory, Hilo, Hawaii, USA
R. McGrath, JPL, Pasadena, California, USA
G.J. Melnick, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, USA
G.F. Mitchell, Department of Astronomy, Saint Mary's University, Halifax, Nova Scotia, Canada
R. Miyawaki, Fukuoka University of Education, Munakata City, Fukuoka, Japan
G. Moriarty-Schieven, Department of Physics, Queen's University, Kingston, Ontario, Canada
L. Mundy, Astronomy Program, University of Maryland, College Park, Maryland, USA
D. Nadeau, Dept. de Physique, Universite de Montreal, Montreal, Quebec, Canada
N. Nakai, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
A. Natta, Astronomy Department, University of Texas, Austin, Texas, USA
P. Neill, Caltech, Pasadena, California, USA
D. Neufeld, Department of Astronomy, University of California, Berkeley, California, USA
L. Noreau, Université Laval, Faculté des Sciences et de Génie, Cité universitaire, Québec, Canada
M. Ohishi, Nobeyama Radio Observatory, Nobeyama, Minamisaku, Nagano, Japan
R. Padman, Cavendish Laboratory, Cambridge, England, UK
F. Palla, Observatorio Astrofisica di Arcetri, Firenze, Italy
J. Payne, NRAO, Tucson, Arizona, USA
Y. Pendleton, NASA/Ames Research Center, Moffett Field, California, USA
B. Pernick, Yerkes Observatory, Williams Bay, Wisconsin, USA
S. Petuchowski, Infrared Astrophysics Branch, NASA/Goddard Space Flight Center, Greenbelt, Maryland, USA
T.G. Phillips, Caltech, Pasadena, California, USA
G. Pillbratt, Astrophysics Division, ESTEC, Noordwijk, The Netherlands
K.K. Pisciotta, Joint Astronomy Centre, Hilo, Hawaii, USA
R. Pudritz, Department of Physics, McMaster University, Hamilton, Ontario, Canada
J. Puget, Radioastronomie Laboratoire, L'Ecole Normale Superieure, Paris, France
R. Rand, Caltech, Pasadena, California, USA
R.O. Redman, National Research Council of Canada, Administrative Services and Publications Branch, Ottawa, Ontario, Canada
N. Reid, Caltech, Pasadena, California, USA
S. Remington, Joint Astronomy Centre, Hilo, Hawaii, USA

J. Richer, Cavendish Laboratory, Cambridge, England, UK
E.I. Robson, Lancashire Polytechnic Institute, Preston, England, UK
T. Roellig, NASA/Ames Research Center, Moffett Field, California, USA
C. Rogers, University of Toronto, Toronto, Ontario, Canada
E. Rosenthal, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
D. Routledge, Electrical Engineering Department, University of Alberta, Edmonton, Alberta, Canada
A. Rudolph, Radio Astronomy Laboratory, University of California, Berkeley, California, USA
A.P.G. Russell, Joint Astronomy Centre, Hilo, Hawaii, USA
L.J. Sage, Department of Physics, New Mexico Tech, Astrophysics Research Center, Socorro, New Mexico, USA
G. Sandell, Joint Astronomy Centre, Hilo, Hawaii, USA
D. Sanders, Caltech, Pasadena, California, USA
A. Sargent, Caltech, Pasadena, California, USA
W.L.W. Sargent, Caltech, Pasadena, California, USA
N.V.G. Sarma, Radiophysics Division, CSIRO, Epping, New South Wales, Australia
D. Sasselov, Department of Astronomy, University of Toronto, Ontario, Canada
A. Schinkel, Caltech Submillimeter Observatory, Hilo, Hawaii, USA
J. Schmid-Burgk, Max-Planck-Institut für Radioastronomie, Bonn, West Germany
P. Scott, Cavendish Laboratory, Cambridge, England, UK
N. Scoville, Caltech, Pasadena, California, USA
E. Serabyn, Caltech, Pasadena, California, USA
P. Shaver, European Southern Observatory, Garching bei München, West Germany
B. Shuter, Department of Physics, University of British Columbia, Vancouver, British Columbia, Canada
M.G. Smith, Joint Astronomy Centre, Hilo, Hawaii, USA
P. Solomon, Astronomy Program, State University of New York, Stony Brook, New York, USA
G. Stacey, Department of Physics, University of California, Berkeley, California, USA
W. Steiger, Caltech Submillimeter Observatory, Hilo, Hawaii, USA
J. Stutzki, Max-Planck-Institut für Extraterrestrische Physik, Garching bei München, West Germany
E. Sutton, Space Sciences Laboratory, University of California, Berkeley,, California, USA
K. Tabor, P.O. Box 2656, Kamuela, Hawaii, USA
L. Tacconi, Radiosterrenwacht Dwingeloo, Dwingeloo, The Netherlands
J. Tarter, NASA/Ames Research Office, SETI Program Office, Moffett Field, California, USA
J.A. Tauber, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA
P. Thaddeus, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, USA
C. Thum, Instituto de Radioastronomia Milimetrica, Granada, Spain

A. Tielens, NASA/Ames Research Center, Moffett Field, California, USA
P. Timbie, Department of Physics, University of California, Berkeley, California, USA
B.E. Turner, NRAO, Charlottesville, Virginia, USA
J. Turner, Department of Astronomy, University of California, Los Angeles, California, USA
A. van Ardenne, Radiosterrenwacht Dwingeloo, Dwingeloo, The Netherlands
W. van Citters, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
E.F. van Dishoeck, Department of Astrophysical Science, Princeton University, Princeton, New Jersey, USA
J.F. Vaneldik, Electrical Engineering Department, University of Alberta, Edmonton, Alberta, Canada
S. Vogel, Department of Physics, Rensselaer Polytechnic Institute, Troy, New York, USA
C. Walker, Steward Observatory, University of Arizona, Tucson, Arizona, USA
T.M. Walker, Joint Astronomy Centre, Hilo, Hawaii, USA
D.M. Walther, Joint Astronomy Centre, Hilo, Hawaii, USA
Z. Wang, Institute for Astronomy, Kula, Hawaii, USA
P.G. Wannier, JPL, Pasadena, California, USA
G.D. Watt, Joint Astronomy Centre, Hilo, Hawaii, USA
A.S. Webster, Joint Astronomy Centre, Hilo, Hawaii, USA
W.J. Welch, Radio Astronomy Lab, University of California, Berkeley, California, USA
G. White, Queen Mary College, London, England, UK
C. Wilson, Caltech, Pasadena, California, USA
G. Winnewisser, I. Physikalisches Institut, Universität zu Köln, Köln, West Germany
D. Woody, Owens Valley Radio Observatory, California, USA
G.S. Wright, Joint Astronomy Centre, Hilo, Hawaii, USA
M. Wright, Radio Astronomy Laboratory, University of California, Berkeley, California, USA
G. Wynn-Williams, Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, USA
K. Young, Caltech, Pasadena, California, USA
L. Ziurys, FCRAO, University of Massachusetts, Amherst, Massachusetts, USA
J. Zmuidzinas, Department of Astronomy, University of Illinois, Urbana, Illinois, USA

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