

TABLE OF CONTENTS

THE SOLAR SYSTEM

The Impact of IRAS on Asteroidal Science	3
<i>S.F.Dermott, P.D.Nicholson, Y.Kim, and B.Wolven</i>	
IRAS Observations of Asteroids	19
<i>E.F.Tedesco, D.L.Matson, G.J.Veeder, and L.A.Lebofsky</i>	
Models for Infrared Emission from Zodiacal Dust	27
<i>M.G.Hauser</i>	
Separating the Solar System and Galactic Contributions to the Diffuse Infrared Background	40
<i>W.Reach and C.Heiles</i>	
Zodiacal Dust Properties as Deduced by Inversion of IRAS Observations	44
<i>A.-Ch.Levasseur-Regourd and R.Dumont</i>	
The Infrared Spectrum of Comet P/Halley	48
<i>Th.Encrenaz</i>	
Halley's Comet	60
<i>I.P.Williams</i>	
The Albedo of Large Refractory Particles from P/Tempel 2	66
<i>M.V.Sykes</i>	
Infrared Studies of Solar System Bodies	73
<i>D.P.Cruikshank</i>	

THE GALAXY

The Large Scale Distribution of Infrared Radiation in Our Galaxy	81
<i>H.J.Habing</i>	
Large Scale Structure of Dust and Gas in the Galaxy	89
<i>E.R.Deul</i>	
Model for the Galactic Infrared Emission	97
<i>P.Cox and P.G.Mezger</i>	
The Nature of the Galactic Bulge	105
<i>R.Harmon and G.Gilmore</i>	
A Procedure for Distinguishing Thermal and Synchrotron Components of the Radio Continuum Emission of the Galactic Disc	109
<i>A.Broadbent, J.L.Osborne, and C.G.T.Haslam</i>	
Infrared Cirrus	113
<i>J.-L.Puget</i>	
Infrared Emission from the Solar Neighborhood	122
<i>F.Boulanger and M.Pérault</i>	
A Post-IRAS Interstellar Dust Model	130
<i>F.-X.Désert, F.Boulanger, and M.Pérault</i>	

The Excitation of the Infrared Emission from Visual Reflection Nebulae	134
<i>K.Sellgren, M.W.Castelaz, M.W.Werner, and L.Luan</i>	
Extended Infrared Emission near Stars	140
<i>F.O.Clark, R.J.Laureijs, C.Y.Zhang, C.Chlewicki, P.R.Wesselius</i>	
Beyond the Asymptotic Giant Branch	144
<i>S.Kwok and K.Volk</i>	
The Study of Star Formation with IRAS	148
<i>C.A.Beichmann</i>	
The Luminosity Functions of Taurus and Chamaeleon	159
<i>J.D.Hughes and J.P.Emerson</i>	
Infrared Spectra of Young Stellar Objects	164
<i>F.C.Adams and F.H.Shu</i>	
INFRARED GALAXIES	
High Luminosity Galaxies in the IRAS Survey	173
<i>D.B.Sanders, B.T.Soifer, and G.Neugebauer</i>	
Starbursts : Nature and Environment	177
<i>C.A.Norman</i>	
Star Formation in Normal Galaxies	186
<i>B.G.Elmegreen</i>	
The Association Between Stellar Bars and Enhanced Activity in the Central Kiloparsec of Spiral Galaxies	194
<i>N.A.Devereux</i>	
Global Properties of Star Formation in Spiral Galaxies	198
<i>T.N.Rengarajan and K.V.K.Iyengar</i>	
Radio and Optical Studies of a Complete Sample of IRAS Galaxies	202
<i>R.D.Wolstencroft, S.W.Unger, A.Pedlar, J.N.Heasley, Q.A.Parker, J.W.Menzies, A.Savage, H.T.MacGillivray, S.K.Legget, W.Gang, and R.G.Clowes</i>	
Optical and Far-Infrared Properties of a 60 μ m Flux Limited Sample of IRAS Galaxies . .	206
<i>J.P.Vader and M.Simon</i>	
IRAS Observations of Normal Galaxies: the UGC Redshift Sample	210
<i>C.J.Lonsdale, W.L.Rice, and G.D.Bothun</i>	
Separation of Nuclear and Disk Components in IRAS Observations of Spiral Galaxies . .	213
<i>R.Ball and K.Y.Lo</i>	
A Post-IRAS View of Active Galaxies	217
<i>A.Lawrence</i>	
Far Infrared Emission of Type 2 Seyferts	230
<i>W.F.Kailey and M.J.Lebofsky</i>	
Starbursts in Interacting Galaxies	234
<i>R.D.Joseph</i>	
The Role of Bars in Starburst Galaxies	246
<i>T.G.Hawarden, C.M.Mountain, P.J.Puxley, and S.K.Legget</i>	
Are Starbursts the Result of the Fine Tuning of Dynamical Timescales ?	253
<i>P.N.Appleton and C.Struck-Marcell</i>	

IRAS Observations of an Optical Sample of Interacting Galaxies	257
<i>S.A.Lamb, H.A.Bushouse, M.W.Werner, and B.F.Smith</i>	

COSMOLOGY IN THE INFRARED

Cosmological Background Radiation in the Infrared	265
<i>B.J.Carr</i>	
Rocket Observation of the Diffuse Infrared Radiation	279
<i>T.Matsumoto</i>	
Spectrum of the Cosmic Microwave Background	289
<i>P.L.Richards</i>	
From Star Formation to Galaxy Formation	297
<i>J.Silk</i>	
Galaxies as Tracers of the Mass Distribution	312
<i>G.Efstathiou</i>	
Young Galaxies	320
<i>G.Burbidge and A.Hewitt</i>	
Infrared and Optical Observations of Distant Radio Galaxies	326
<i>J.S.Dunlop and M.S.Longair</i>	
A Very Deep IRAS Survey at the North Ecliptic Pole	340
<i>J.R.Houck, P.B.Hacking, and J.J.Condon</i>	
Cosmological Evolution of Starburst Galaxies and IRAS Counts at $60\mu\text{m}$	344
<i>A.Franceschini, L.Danese, G.De Zotti, and C.Xu</i>	
The IRAS Dipole	348
<i>M.Rowan-Robinson</i>	
A Redshift Survey of IRAS Galaxies	361
<i>M.A.Strauss and M.Davis</i>	
The Impact of Infrared Astronomy on the Distance Scale	370
<i>L.Gouguenheim</i>	
CONFERENCE SUMMARY	385
<i>M.Harwit</i>	
<i>List of Poster Papers</i>	393
<i>Subject Index</i>	397
<i>Author citation index</i>	400
<i>Astronomical object index</i>	408