ST-ECF / ST ScI Second Conference on

Science with the Hubble Space Telescope

UNESCO Building, Paris

4-8 December, 1995

PROGRAMME

(as of November 8, 1995)

MONDAY, DECEMBER 4

10:30 - 18:30 Registration

14:00 Welcome - Introduction *R.M. Bonnet / R.E. Williams*

Session 1 (Plenary) - HST and the Distant Universe

14:30 The Value of the Hubble Constant *W.L. Freedman*

15:15 The Value of the Hubble Constant *G.A. Tammann*

16:00 H_o - Open Discussion

16:30 **Coffee Break**

17:00 Distant Galaxies *M. Longair*

18:00 The "Hubble Deep Field" Program *R.E. Williams*

18:45 **Welcome Reception**

TUESDAY, DECEMBER 5

Session 2 (Plenary) - QSO, Galaxies and InterGalactic Medium

09:00	Radio Galaxies	*G. Miley*
09:40	Active Galactic Nuclei	*F.D. Macchetto*
10:30	**Coffee Break**	
10:50	QSO Host Galaxies	*J.N. Bahcall*
11:25	IGM and QSO Absorption Lines	*B.T. Jannuzi*
12:00	Elliptical Galaxies	*G. Illingworth*
12:35	**Lunch Break**	

Session 3 (Parallel) - Distance Scale, Lenses, Host Galaxies, Black Holes, Jets

14:00	The Extragalactic Distance Scale Key Project: NGC 7331	*S. Hughes*
14:10	First Attempt at Using the White Dwarfs Cooling Sequence To Get the Distance of the Globular Cluster NGC 6752	*A. Renzini*
14:20	The Value of the Hubble Constant from HST Observations of Leo-I Group Galaxies	*N. Tanvir*
14:30	The Wind Momentum - Luminosity Relation for Luminous Blue Stars and the Extragalactic Distance Scale	*D. Lennon*
14:40	Host Galaxies of QSO's	*M.J. Disney*
14:50	Evolution of the Fundamental Plane from z=0 to z=0.4	*M. Franx*
15:00	HST Observations of the Luminous IRAS Source FSC 10214+4724: A Gravitationally Lensed Infrared Quasar	*P. Eisenhardt*
15:20	HST and Gravitational Lensing: Determination of the Cosmological Density of Compact Objects	*J.-F. Claeskens*
15:30	**Coffee Break**	
16:00	New FOS Observations of the Nuclear Disk of M87	*H. Ford*
16:10	Evidence for a Nuclear Massive Black Hole in the Active Galaxy NGC 4261 from HST WFPC2 and FOS Observations	*L. Ferrarese*
16:20	The Nuclear Disk in NGC 4570	*W. Jaffe*
16:30	The Jet of 3C273 Observed with WFPC2 and the VLA	*H.-J. Röser*
16:40	Optical Jets in Radio Galaxies	*W.B. Sparks*
16:50	Progress towards Understanding the Physics of the NLR	*D. Axon*
17:00	NLR Kinematics of NGC 1068	*S. Wagner*

Session 4 (Parallel) - Stars and Stellar Populations

14:00	Recent HST Results in Globular Clusters	*I.R. King*
14:20	Colour-Magnitude Diagrams of M31 Globular Clusters with HST	*F. Fusi Pecci*
14:30	Stellar Luminosity and Mass Functions of Galactic Globular Clusters from Deep WFPC2 Images	*G. Piotto*
14:40	HST Observations of Bulge Globular Clusters	*S. Ortolani*
14:50	Blue Stragglers and Horizontal Branch Stars in the Core of the Globular Cluster M3	*D. Burgarella*
15:00	Population II Main-sequence Stars at the Hydrogen Burning Limit	*R. Ibata*
15:10	The Bottom of the Main Sequence: an HST Survey	*F. Paresce*
15:30	**Coffee Break**	
16:00	HST Imagery and Spectroscopy of IZW18	*R.J. Dufour*
16:20	Post-COSTAR UV Imaging of the Bulge of M31	*L. Buson*
16:30	The Evolution of Boron in the Galaxy	*D.K. Duncan*
16:50	Measurement of the 12C/13C Ratio in Planetary Nebulae with GHRS	*J.R. Walsh*

(One parallel session to take place in Salle XII, UNESCO, and one in the Cinema, ESA Headquarters, 8-10 rue Mario Nikis)

WEDNESDAY, DECEMBER 6

Session 5 (Plenary) - Stars, Stellar Populations and SNR

09:00	Stellar Explosions and Outflows	*M. Livio*
09:40	Globular Clusters	*A. Renzini*
10:30	**Coffee Break**	
10:50	Supernovae and SN Remnants	*R.P. Kirshner*
11:25	Stellar Populations	*R. Kennicutt*
12:00	Hot Stars	*R.-P. Kudritzki*
12:35	**Lunch Break**	

Session 6 (Parallel) - Distant Galaxies, IGM, ISM, QSO Absorption Lines

14:00	HST Imaging and Spectroscopy of Ultra Faint Radio Sources	*F. Hammer*
14:10	Tackling the Nature of Faint Blue Galaxies with HST and Keck	*D.C. Koo*
14:20	Morphological Classification of Galaxies from an Ultradeep WFPC2 Field in BVI	*S.C. Odewahn*
14:30	A Cluster of Lyman-alpha Emitting Candidates at z~2.4 in Cycle 5 WFPC2 Images: Galaxy Formation from Sub-galactic Clumps?	*S.M. Pascarelle*
14:40	Cosmology with the Medium Deep Survery	*R.E. Griffiths*
14:50	HST Imaging of Field Galaxies from the Canada-France Redshift Survey	*D. Schade*
15:00	HST Morphology of Star-forming Galaxies at Redshift z>3	*M. Giavalisco*
15:10	Intergalactic Helium Absorption Toward Quasars	*P. Jakobsen*
15:30	**Coffee Break**	
16:00	Some Recent Results on QSO Absorption Line Studies with HST	*V.K. Khersonsky*
16:10	The UV Absorption Line Spectra of High-redshift QSOs	*D. Reimers*
16:20	Recent Results from HST Observations of Broad Absorption Line QSOs	*D.A. Turnshek*
16:30	Deuterium in the Local Interstellar Medium	*R. Ferlet*
16:50	Observations of Interstellar Clouds in the Galactic Halo	*E.L. Fitzpatrick*
17:10	Local Interstellar Cloud(s) Observations with the GHRS	*R. Lallement*
17:20	Hot and Cold gas in Extragalactic Superbubbles - Probing the ISM of the Superbubble LMC2 in the Large Magellanic Cloud	*A. Caulet*

Session 7 (Parallel) - Stars and Stellar Populations

14:00	HST/GHRS Observations of PG1159 Stars: Confining the Edge of the GW Vir Instability Strip	*U. Heber*
14:20	HST Observations of Jets and Circumstellar Disks	*C. Burrows*
14:30	HST Observations of Herbig-Haro Jets: Structure, Kinematics and Entrainment	*S. Heathcote*
14:40	Is There A Dichromatic UV Laser in Eta Carinae?	*S. Johansson*
14:50	Fundamental Properties of Ofpe/WN9 from Ultraviolet HST Spectra	*A. Pasquali*
15:00	Analysis of the Wind Lines of the Symbiotic Novae AG Peg	*W. Schmutz*
15:10	Hubble GHRS and FOS Spectroscopy of Exposed White Dwarfs in Dwarf Novae	*E.M. Sion*
15:20	Proper Motions with HST: Search for High Velocity Stars in 47 Tuc	*D. Minniti*
15:30	**Coffee Break**	
16:00	HST Studies of Carbon and K-M Giant / Supergiant Stars	*K.G. Carpenter*
16:20	Geminga in the Space Telescope Era	*P.A. Caraveo*
16:30	The UV Polarization of the Crab Pulsar	*J.F. Dolan*
16:40	The Orbit and Individual Mass Determinations for the Low-Mass Binary L722-22	*L. Taff*

(One parallel session to take place in Salle XII, UNESCO, and one in the Cinema, ESA Headquarters, 8-10 rue Mario Nikis)

THURSDAY, DECEMBER 7

Session 8 (Plenary) - HST Future Science Instrumentation

08:30	Future Servicing Missions: 1997, 1999, 2002	*D. Leckrone*
09:00	STIS Capabilities and Performance	*A. Danks*
09:30	NICMOS Capabilities and Performance	*R.I. Thompson*
10:00	ACS Capabilities and Performance	*H. Ford / M. Clampin*
10:30	**Coffee Break**	
11:00	HST and Beyond Study	*R. Brown*
11:45	ESA 2002 Study	*F. Paresce*
12:30	Round Table and Community Response	*P. Stockman (Lead)*
13:00	**Lunch Break**	

Session 9 (Plenary) - 1997 Servicing Mission - Users Clinic

14:00	Planning for STIS and NICMOS	*J.C. Blades / C. Biagetti*
14:30	Scientific Uses of STIS	*A. Danks / S. Baum / M. Clampin*
15:15	**Coffee Break**	
15:45	Scientific Uses of NICMOS	*R.I. Thompson / D. Axon / J. MacKenty*
16:30	A University Class Instrument	*R. Bless*
16:45	Photometry and Astrometry with Undersampled Data: Applications to WFPC-2 and NICMOS	*H.-M. Adorf*
17:00	Adjourn	

FRIDAY, DECEMBER 8

Session 10 (Plenary) - Planetary Science

09:00	The Birth of Stars: Herbig-Haro Jets, Accretion and Proto-Planetary Disks	*J. Bally*
09:40	Planets	*M. McGrath*
10:30	**Coffee Break**	
10:50	An HST Survey of the Inner Regions of the Orion Nebula	*C.R. O'Dell*
11:25	Comets	*P. Feldman*
12:00	**Lunch Break**	

Session 11 (Plenary) - Solar System

14:00	HST Observations of Saturn during the August and November 1995 Ring Plane Crossings	*B. Sicardy*
14:20	The CO Abundance on Neptune from HST Observations	*R. Courtin*
14:40	HST Observations of Mars: The CO Abundance	*J. Caldwell*
15:00	Hubble Space Telescope Spectroscopic Observations of the Jovian Atmosphere Following the Shoemaker-Levy 9 Impacts	*M. McGrath*
15:10	WFPC2 Imaging of Saturn's Far Ultraviolet Aurora	*J. Trauger*
15:20	FUV Spectro-imaging of the Atmosphere and Rings of Saturn	*R. Prangé*
15:30	**Coffee Break**	
16:00	Imaging Jupiter's Aurora with the HST/WFPC2	*J.T. Clarke*
16:10	Simultaneous Spectroscopy and Imaging of the Jovian Aurora with the Hopkins Ultraviolet Telescope and the HST	*P. Feldman*
16:20	Far-UV Spectral Diagnostic of Jovian Auroral Processes with GHRS	*R. Prangé*
16:30	GHRS Observations of the Extra-solar Protoplanetary System β Pictoris	*A.-M. Lagrange*

SATURDAY, DECEMBER 9

Special Education Session

(to be held at ESA Headquarters, 8-10 rue Mario Nikis)

09:30 - 12:00 Morning Session presentations include:

Creation of Hands-On Astronomical Activities
Lucienne Gougeunheim, Observatoire de Meudon, Meudon, France

Collaboration Between Astronomers and Planetaria
Doug Duncan, Adler Planetarium/University of Chicago, Illinois

Utilizing the World Wide Web for Education
Carol Christian, Space Telescope Science Institute, Baltimore, Maryland,

13:30-15:30 Afternoon Session

Hands-On Demonstration
Kim Zeidler, Space Telescope Science Institute, Baltimore, Maryland

Panel Discussion
Cultivating the Bond Between Teachers and Astronomers
Kim Zeidler, Space Telescope Science Institute, Baltimore, Maryland
Josee Sert, Toulouse Lycée, France
Michele Gerbaldi, Institut d'Astrophysique, Paris, France
Anne Kinney, Space Telescope Science Institute, Baltimore, Maryland

LIST OF POSTER PAPERS

P01	Dust, Gas, and Alignments in 3CR Galaxies	*Baum, S.*
P02	NGC 1068 Revisited, Again	*Catchpole, R.*
P03	The Continuum and Line Spectra of the Seyfert 2 Galaxy NGC 5252: Radiation and Shock Contributions	*Contini, M.*
P04	Multifrequency Imaging and Spectroscopy of the Jet-cloud Interaction in the Radio Galaxy PKS2152-699	*Fosbury, R.A.E.*
P06	The Small Scale Structure of Markarian Seyfert Galaxies	*MacKenty, J.*
P07	Nearby Galaxies in the UV: Super-starclusters and Micro-quasars	*Maoz, D.*
P08	Extragalactic Cepheid Distances by Calibrated Period-Luminosiy-Color Relation in the Cousins Color (V - Ic)	*di Benedetto, G.P.*
P09	Cosmological Molecular Clouds	*Puy, D.*
P10	Hubble Space Telescope Observations of Globular Clusters in M87 and an Estimate of H0	*Sparks, W.B.*
P11	WFPC2 Imaging of Ring Galaxies	*Borne, K.*
P12	The Nucleus of M31	*Crane, Jr., P.*
P13	Optical Ground Based Images of BL Lac Objects Scheduled for HST Observations	*Falomo, R.*
P14	Structural and Velocity Scales in Distant Galaxies: Keck Spectroscopy of HST WFPC2 Deep Galaxy Fields	*Illingworth, G.*
P15	HST Images of Nearby Luminous Quasars	*Kirhakos, S.*
P16	Absorption Line Spectra of the UV Bright z=2.4 Quasar HE1122–1649	*Köhler, S.*
P17	QSO Fueling in Giant Ellipticals: Accretion of Gas Rich Spirals	*Maraschi, L.*
P18	Ionization and Thermal Structures of the Absorption-line Systems of Quasars	*Sasaki, S.*
P19	Quasar Spectrum at Intermediate Redshift	*Zheng, W.*
P20	Some Characteristics of QSO Metal Absorption Line Systems	*Hayashino, T.*
P22	GHRS Observations of Diffuse Clouds in the Local Bubble	*Gry, C.*
P23	The GHRS and the Heliosphere	*Lallement, R.*
P24	GHRS Observations of Interstellar Deuterium toward HZ 43	*Landsman, W.*
P25	HST Observations of the Expansion and Shape of the SN 1987A Debris	*Pun, C.J.*
P26	HST Parallel Imaging in the Magellanic Clouds – First Results	*Walsh, J.*
P27	HST Spectral Maps of Accretion Disks in Cataclysmic Binaries	*Baptista, R.*
P28	Spatially Resolved Narrow-Band Imagery of the Compact Planetary Nebulae Hu 2-1 and M 1-58	*Bobrowsky, M.*
P29	Very Low Luminosity Main Sequence Stars: Stellar Models and Observations	*Brocato, E.*
P30	Is the Crab Pulsar Showing a 60 Second Precessional Period	*Cadez, A.*
P32	Analysis of HST and IUE Spectra of β Cephei Stars	*Cugier, H.*
P33	Analysis of Lyα in B-type Stars	*Cugier, H.*
P34	Star Formation in the SO Galaxy NGC 5102	*Deharveng, J.-M.*

P35	Ultraviolet Observations of the Dwarf Spheroidal Galaxy Leo I	*Deharveng, J.-M.*
P36	SS433 in the Ultraviolet	*Dolan, J.F.*
P37	B Abundance of BD-13° 3442	*Duncan, D.K.*
P38	Globular Clusters and Stellar Populations in Nearby Galaxies	*Elson, R.A.W.*
P39	The Old Nova V603 Aql's Spectrum Observed with the HST	*Friedjung, M.*
P40	HST Observations of the Galactic Globular Cluster M3	*Fusi Pecci, F.*
P41	Accretion Disks with Turbulent Convection	*Goldman, I.*
P42	IRAC2/HST Colour-magnitude Diagrams of Bulge Globular Clusters	*Guarnieri, M.D.*
P43	The Carbon and Oxygen Abundance of K648, the Central Star of the PN Ps1 in the Globular Cluster M15	*Heber, U.*
P44	Long Period Variables in M81	*Hughes, S.*
P46	HDE269810 – A 180 Solar Mass Star in the Large Magellanic Cloud?	*Kudritzki, R.-P.*
P47	A Search for Variable Stars Based on the HST Fine Guidance Sensors Photometry	*Kuschnig, R.*
P48	The Ultraviolet Spectrum of DQ Herculis: Detection of Line and Continuum Pulsation	*Margon, B.*
P49	HST Observations of the Starburst Galaxy NGC 1569	*Ortolani, S.*
P50	Evidence for a Nearly Coeval Formation of the Galactic Bulge and Halo	*Renzini, A.*
P51	HST Results from V795 Her: Structure and Orbital Variations in the UV lines	*Rosen, S.R.*
P52	The Luminosity and Mass Functions of Clusters in the Galaxy	*Santiago, B.X.*
P53	Gas and Dust Abundances in Diffuse Halo Clouds	*Sembach, K.R.*
P54	HST/GHRS Observations of the Hottest Known He-rich White Dwarf and PG1159 Star	*Werner, K.*
P55	Eclipse Decomposition of Time-Resolved UBVRI and HST Spectra of the Dwarf Nova IP Peg	*Wolf, S.*
P56	Re-classification of HST Targets	*Murtagh, F.*
P57	A Compact Instrument to Detect and Study Seismological Doppler Signals from Jupiter. A Proposal for Flight Instruments on HST	*Cacciani, A.*
P58	A New Description of The Upper Atmosphere of Jupiter From High Resolution Measurements of the Lyman-Alpha Jovian Line	*Emerich, C.*
P59	HST Observations of Comet Hale-Bopp	*Feldman, P.*
P60	Characterization and Numerical Simulation of the Jovian UV Aurora Observed with the HST Cameras	*Grodent, D.*
P61	Direct Imaging of Circumstellar Disks in the Orion Nebula	*McCaughrean, M.J.*
P62	Jovian Auroral Processes Revealed by High Spatial Resolution HST/FOC Imaging	*Prangé, R.*
P63	HST Faint Object Camera UV Observations of the Shoemaker-Levy 9 Impact Sites and of Their Temporal Evolution	*Prangé, R.*

P64 Magnetic Mapping and Interpretation of Auroral Signatures of Comet SL9 in the Jovian Magnetosphere *Prangé, R.*
P65 The UV Albedo of Titan *Smith, E.*
P66 Complementarity between HST Observations and Ground-based Bidimensional Spectrography *E. Pécontal*
P67 The Redshift One Radio Galaxies *M. Longair*
P68 First Comparison of FOS and Optical Spectra for a Large Sample of AGN *J. Sulentic*

LATE CONTRIBUTIONS

L01 Large and Small Scale Structures in the AG Carinae Nebula from WFPC2/HST Observations *Nota, A.*