CONTENTS

Relevance Of Supra-Thermal Ion Observations For Heliospheric Physics
S. A. Livi, G. C. Ho, N. Paschalidis, M. I. Desai, F. Allegrini, & D. J. McComas

Flare Generated Energetic Electrons Observed By The Solar Orbiter
G. Mann, A. Warmuth & H. Aurass

Solar Wind Electrons And Associated Heat Conduction In The Inner Heliosphere
C. Salem, S. D. Bale, & M. Maksimovic

Numerical Simulations Of The Neutral Solar Wind Distribution As Expected At The Solar Orbiter Position
R. D'Amicis, S. Orsini, E. Antonucci, M. Hilchenbach,A. M. Di Lellis, D. Telloni, S. Fineschi, A. Milillo, R. Bruno A. Mura & E. De Angelis

Session 2

Investigate The Links Between The Solar Surface, Corona And Inner Heliosphere

Status Of Knowledge After Ulysses And SOHO
S. T. Suess

Charged Energetic Particle Environment In The Innermost Part Of The Heliosphere: Unsolved Problems
D. Lario

Connecting The Sun And The Heliosphere: Strategies For Solar Orbiter In-Situ Measurements
T. H. Zurbuchen

Synergies With The Solar Orbiter Mission: Remote Sensing Studies Of The Corona And Coronal Transients
A. Vourlidas

Viewing Structure In Coronal Images
H. Morgan, S. R. Habbal & S. Fineschi

Session 3

Explore, At All Latitudes, The Energetics, Dynamics And Fine-Scale Structure Of The Sun's Magnetized Atmosphere

Energetic, Dynamics And Fine-Scale Structure Of The Sun's Magnetized Atmosphere, Observational Strategies For The Solar Orbiter
O. Kjeldseth-Moe

Instrumental Approaches To Achieve The Measurements Required For Exploring The Energetics, Dynamics And Fine-Scale Structure Of The Sun's Magnetized Atmosphere
U. Schühle

Synergies With Other Missions Concerning Ultraviolet Imaging And Spectroscopy
H. Peter

Nonlinear Force-Free Magnetic Field Modelling For VIM On SO
T. Wiegelmann, S. K. Solanki, A. Lagg & L. Yelles

Studying The Magnetic Origins Of Solar Eruptions Using "Solar Orbiter"
A. Nindos

Science With The Extreme Ultraviolet Spectrometer For Solar Orbiter
P. R. Young & The EUS Science Working Group

Impulsive Coronal Heating At Sub-Arcsecond Scales: What Is The Best Diagnostic?
S. Patsourakos & J.A. Klimchuk

Coronal Turbulence And Intermittency From Solar Orbiter Observations
E. Buchlin & J.-C. Vial

Electron Transport Regimes And Magnetic Turbulence Levels In Coronal Loops
G. Zimbardo, R. Martino & P. Veltri

Session 4

Probe The Solar Dynamo By Observing The Sun's High-Latitude Field, Flows And Seismic Waves

The Solar Dynamo - What Have We Learned From Helioseismology?
M. J. Thompson

Helioseismology With Solar Orbiter: Science Objectives, Observational Strategies And Requirements
L. Gizon

Instrumental Approaches To Magnetic And Velocity Measurements In And Out Of The Ecliptic Plane
V. Martínez Pillet

Synergies With Other Missions And Projects Concerning Visible-Light Observations
W. Schmidt

Helioseismology At High Latitudes
I. Gonzalez Hernandez & The GONG Helioseimology Team

Solar Coronal Magneto-Seismology With Solar Orbiter
G. Verth & R. Erdélyi

Observing The He II Off-Limb Corona From Solar Orbiter
S. Giordano, S. Fineschi, L. Ofman, S. Mancuso & L. Abbo

Disentangling The Magnetic Field Structure Of Sunspots – Stereoscopic Polarimetry With Solar Orbiter
D.A.N. Mueller, R. Schlichenmaier, C. Beck & G. Fritz

Session 5

Poster session: Listed after main sessions.

Session 6

Open Session On Science Objectives And Instrumental Issues Of Solar Orbiter

EUI, The Ultraviolet Imaging Telescopes Of Solar Orbiter
J.-F. Hochedez , T. Appourchaux, J.-M. Defise, L. K. Harra, U. Schuehle, F. Auchère , W. Curdt, B. Hancock, M. Kretzschmar, G. Lawrence, J. -C. Leclec'h, E. Marsch, R. Mercier, S. Parenti, E. Podladchikova, M. -F. Ravet, P. Rochus, L. Rodriguez, F. Rouesnel, S. Solanki, L. Teriaca, L. Van Driel, J. C. Vial, B. Winter & A. Zhukov

Simulations Of Science Data Of The Solo-VIM Instrument
L. Yelles, J. Hirzberger, A. Lagg, J. Woch, S. K. Solanki & A. Vögler

Extreme-Ultraviolet Spectrometer For Solar Orbiter
R. A. Harrison & E. Sawyer

The Lower Transition Region As Seen In The H I Lyman-α Line.
L. Teriaca, U. Schuehle, S.K. Solanki, W. Curdt & E. Marsch

Neutral Solar Wind And The Inner Source Of The Pick-Up Ions
A. Czechowski & M. Hilchenbach

A Radio And Plasma Wave Experiment For The Solar Orbiter Mission
M. Maksimovic, S. D. Bale, A. Vaivads, V. Krassnoselskikh, T. Chust, M. Balikhin, K. Goetz, P. Gough, P. Travnicek, J. Soucek & H. Rucker

Antenna Design Considerations For The Radio And Plasma Wave (RPW) Experiment On Solar Orbiter
S. D. Bale, M. Maksimovic, A. Vaivads, M. Andre & L. Blomberg

The Solar Wind Proton And Alpha Sensor For The Solar Orbiter
D. J. McComas, M. I. Desai, F. Allegrini, M. Berthomier, R. Bruno, P. Louran, E. Marsch, C. J. Owen, N. A. Schwadron & T. H. Zurbachen

A Magnetometer For The Solar Orbiter Mission
C. M. Carr, T. S. Horbury, A. Balogh, S. D. Bale, W. Baumjohann, B. Bavassano, A. Breen, D. Burgess, P. J. Cargill, N. Crooker, G. Erdos, L. Fletcher, R. J. Forsyth, J. Giacalone, K.-H. Glassmeier, T. Hoeksema, M. L. Goldstein, M. Lockwood, W. Magnes, M. Maksimovic, E. Marsch, W. H. Matthaeus, N. Murphy, V. Nakariakov, J. R. Pacheco, J. –L Pincon, P. Riley, C. T. Russell, S. J. Schwartz, A. Szabo, M. Thompson, R. Vainio, M. Velli, S. Vennerstrom, R. Walsh, R. Wimmer-Schweingruber & G. Zank

Observing Small Scale Alfvénic Turbulence Around 0.2 AU
R. Bruno, R. D'Amicis, B. Bavassano, M. B. Cattaneo, V. Carbone, L. Sorriso-Valvo & E. Pietropaolo

The Energetic Particle Detector (EPD) For Solar Orbiter
R. F. Wimmer-Schweingruber, B. Heber, J. Rodriguez-Pacheco, R. P. Lin, G. M. Mason, J. Ryan & E. Valtonen

Session 7

Optimization of Solar Orbiter

Implemention Of The Thermal Noise Spectroscopy On Solar Orbiter
I. Zouganelis, M. Maksimovic, N. Meyer-Vernet, K. Issautier, M. Moncuquet & S. D. Bale

SONNE: A Telescope For Imaging Solar Neutrons Below 10 Mev In The Inner Heliosphere
M. R. Moser, J. M. Ryan, U. Bravar, J. J. Connell, E. O. Flückiger, A. L. MacKinnon, J. R. Macri, M. L. McConnell & R. B. McKibben

Solar Orbiter Neutral Solar Wind Detector
M. Hilchenbach, S. Orsini, K. C. Hsieh, E. Antonucci, S. Barabash, K. Bamert, R. Bruno, M.R. Collier, A. Czechowski, R. D'Amicis, E. De Angelis, I. Dandouras, A. M. Di Lellis, R. Esser, J. Giacalone, M. Gruntman, S. R. Habbal, J. R. Jokipii, E. Kallio, J. Kota, H. Kucharek, R. Leoni, S. Livi, I. Mann, E. Marsch, E. Möbius, A. Mura, R. B. Sheldon, W. Schmidt, S. Selci, K. Szego, J. Woch, P. Wurz & T. H. Zurbuchen

Inner Source Pickup Ions: Sputtering Of Small Dust Particles And Charge Exchange Of Solar Wind Ions
P. Bochsler, E. Möbius & R. F. Wimmer-Schweingruber

Optical Design Of The Extreme Ultraviolet Spectrometer (EUS) On Board Solar Orbiter
K. Middleton, V. Da Deppo, L. Poletto, U. Schühle, R. J. Thomas & P. R. Young

Simulation And Analysis Of VIM Measurements: Feedback On Design Parameters
D. Orozco Suárez, L. R. Bellot Rubio, S. Vargas, J. A. Bonet, V. Martínez-Pillet & J.C. del Toro Iniesta

Second Solar Orbiter Workshop - Concluding Remarks
A. Gabriel

Posters

Solar Wind Turbulent Spectra And Role Of Hall Effect: A Case Study
O. Alexandrova, V. Carbone, P. Veltri & L. Sorriso-Valvo

Modeling The 3-D Geometry of Coronal Loops
C. E. Alissandrakis, C. Gontikakis & H. C. Dara

Motions Near The Solar Limb From TRACE Ly-α Observations
Th. G. Zachariadis & C. E. Alissandrakis

Liquid Crystal Variable Retarders For Aerospace Applications
A. Álvarez-Herrero, R. L. Heredero, N. Uribe-Patarroyo, A. Sánchez, M. Reina, G. Ramos, T. Belenguer, J. C. del Toro, L. Jochum & V. Martínez Pillet

Systematic Characterization Of Low Frequency Electric And Magnetic Field Data Applicable To Solar Orbiter
J. E. S Bergman & T. D. Carozzi

The Faint Drifting Decameter Radio Bursts From The Solar Corona
C. Briand, A. Zaslavsky, A. Lecacheux P. Zarka, M. Maksimovic & A. Mangeney

A Low Frequency Receiver For The Solar Orbiter Mission
T. Chust, A. Roux, M. Berthomier, A. Bouabdellah, C. Coillot, S. Ruocco, D. Alison, J. Soucek, O. Santolik, A. Vaivads, M. Maksimovic & S. D. Bale

Inner Heliospheric Sentinels Spacecraft Concept
R. Conde, K. Potocki, A. Szabo, K. Kirby, H. Maldonado, P. B. Adamsen, R. S. Bolulic, G. Dakermanji, W. F. Dellinger, J. P. Downing, C. J. Ercol, D. C. Folta, K. B. Fielhauer, J. S. Kelley, B. Q. Le, B. A. Leary, W. S. Lewis, S. X. Ling, G. Marr, P. M. Malouf, D. H. Napollilo, D. F. Persons, J. R.Troll, R. E. Wallis & R. P. Lin

Simulation Of An Active Region With A Simple Electrodynamic Model
I. Contopoulos, C. Gontikakis & H. C. Dara

Numerical Studies For The Solar Wind Proton And Alpha Particle Sensor
R. D'Amicis, R. Bruno, M. B. Cattaneo, B. Bavassano, S. Orsini, J. A. Sauvaud, P. Louarn & A. M. Di Lellis

Resonance Probe For Measuring Solar Wind Velocity
V. Fiala, J. Soucek & O. Santolik

Radial Study Of Solar Phenomena Using Raster Scans. First Results Of The Method For SUMER/SOHO Rasters
J. Giannikakis & E. Antonopoulou

Electron Acceleration And Transport During The November 1, 2004 Solar Energetic Particle Event
R. Gómez-Herrero, A. Klassen, B. Heber, R. Müller-Mellin, A. Kharytonov, E. Böhm, W. Dröge & R. Wimmer-Schweingruber

Particle Acceleration In Single Or Multiple Solar Current Sheets: The Final Spectra
C. Gontikakis, A. Anastasiadis & C. Efthymiopoulos

SOHO Observations Of A Coronal Loop Compared With A 2D MHD Loop Model
C. Gontikakis, G. J. D. Petrie, H. C. Dara & K. Tsinganos

Scientific Justification For The Low-Frequency Radio Measurements By The Solar Orbiter Mission
N. Gopalswamy, R. J. MacDowall, M. L. Kaiser, S. D. Bale, M. Maksimovic & J.-L. Bougeret

Magnetic Wave Field Measurements In The Solar Orbiter Project
V. Krasnoselskikh, J.-L. Pinçon, T. Dudok de Wit, P. Fergeau, G. Jannet, T. Chust, C. Coillot & M. Maksimovic

Ionic Charge State Measurements Of Suprathermal Ions On Solar Orbiter
H. Kucharek, E. Möbius, F. Allegrini, M. I. Desai, G. Ho, G. Mason & R. Wimmer-Schweingruber

The Performance Of The SOLO-VIM Instrument: Effects Of Instrumental Noise And Lossy Data Compression
A. Lagg, L. Yelles, J. Hirzberger, J. Woch & S. K. Solanki

Space Borne Solar Coronagraphs External Occulter Apodization
F. Landini, M. Romoli & G. Rossi

Studying MHD Turbulence And Intermittency In Coronal Structures With Solar Orbiter
F. Lepreti, V. Carbone & P. Veltri

Energetic Particles As Tracers Of Magnetic Connectivity And Solar Injection
O. E. Malandraki, D. Lario, K.-L. Klein, R.G. Marsden, B. Heber, E. T. Sarris & A. Geranios

Observations Of Solar Activity By The Radiospectrometer Aboard The Solar Orbiter
G. Mann, H. Aurass, C. Vocks & H. O. Rucker

NRL EUV Imager: The Solar EUV Atmospheric Research Of The Corona And Heliosphere (SEARCH) Experiment
J.S. Newmark, G. A. Doschek, C. M. Brown, J. W. Cook, J. Klimchuck, C.M. Korendyke, J.D. Moses, S. H. Myers, A. Vourlidas & J. F. Seely

Aspects Of The RPW Antennas Of Solar Orbiter
T. H. Oswald, H. O. Rucker, W. Macher & The Solar Orbiter RPW Team

Thermal Feasibility Study Of The Solar Orbiter Visible Light Imager And Magnetograph (VIM)
I. Pérez Grande, V. Martinez-Pillet, J. Woch & H. Hartwig

Magnetospheric Optics For Solar Cosmic Rays Producing Ground Level Enhancements
C. Plainaki, A. Belov, E. Eroshenko, H. Mavromichalaki & V. Yanke

A Reduced MHD Turbulence Numerical Approach On Coronal Loop Heating: Deriving Scaling Laws
Z. Romeou, M. Velli & G. Einaudi

The HERSCHEL/SCORE Visible And UV Coronagraph
M. Romoli, G. Capobianco, V. Da Deppo, S. Fineschi, M. Focardi, A. Gherardi, F. Landini, M. A. Malvezzi, G. Naletto, P. Nicolosi, E. Pace, M. Pancrazzi, M. G. Pelizzo, G. Rossi, L. Zangrilli & E. Antonucci

Considerations Of Solar Orbiter Electric Antenna Modeling
H. O. Rucker, T. H. Oswald, W. Macher & The Solar Orbiter RPW Team

Application Of PRASSADCO To The Solar Orbiter Data Of The Low Frequency Receiver
O. Santolik, J. Soucek, V. Fiala, J. Chum, T. Chust & M. Maksimovic

Space Qualification Of A Thin Wafer Lithium Niobate Etalon For The Visible Light Imager And Magnetograph (Vim)
U. Schühle, S. K. Mathew, M. Wedemeier, H. Hartwig, E. Ballesteros, V. Martinez-Pillet & S. K. Solanki

Thin Silicon Carbide Coating Of The Primary Mirror Of VUV Imaging Instruments Of Solar Orbiter
U. Schühle, H. Uhlig, W. Curdt, T. Feigl, A. Theissen & L. Teriaca

The Lower Transition Region As Seen In The H I Lyman-α Line
L. Teriaca, U. Schuehle, S. K. Solanki, W. Curdt & E. Marsch

Design Of A Fabry Perot Interferometer For The VIM Instrument Aboard Solar Orbiter
C. Trosseille, T. Appourchaux & V. Martinez-Pillet

A Low Energy Telescope For Solar Orbiter
E. Valtonen, R. Vainio, J. Rodriguez-Pacheco, L. kocharov, T. Laitinen & The EPD/LET Team

Evidence Of An Association Between The Presence Of Penumbrae And Strong Radial Outflows In Sunspots
S. Vargas, J. A. Bonet, V. Martinez-Pillet & Y. Katsukawa

High Energy Telescope With Neutron Detection Capabilities (HETn)
A. Posner, R. F. Wimmer-Schweingruber, E. Boehm, S. Boettcher, J. J. Connell, W. Dröge, D. M. Hassler, B. Heber, C. Lopate, R. B. McKibben & C. T. Steigies

A Need For Automated Tools For Extraction And Visualisation Of The Data From Orbiter Payload
V. V. Zharkova

Latitudinal And Longitudinal Distributions Of Sunspots And Solar Flare Occurrence In The Cycle 23 From The Solar Feature Catalogues
V. V. Zharkova & S. I. Zharkov

A Pixel Silicon Detector For Charge Identification In Solar Energetic Particles Onboard Solar Orbiter
R. Sparvoli, A. Basili, F. Berrilli, V. Bidoli, M. Casolino, D. Del Moro, M. De Pascale, A. Egidi, T. Froysland, S. Giordano, L. Marcelli, V. Malvezzi, M. Minori, P. Picozza, E. Reali, B. Viticchiè, V. Bonvicini & G. Castellini

A Faraday-Cup Solar Wind Experiment for Solar Orbiter
A. J. Lazarus, J. C. Kasper & K. W. Ogilvie

Participants