

# 100 Year Starship Study™ Public Symposium

Proposed agenda as of 8/25/11. All items subject to change. Please check <http://100yearstarshipstudy.com/agenda.html> for updates.

## VENUE INFORMATION

### Hilton Orlando Convention Center

**Address:** 6001 Destination Parkway, Orlando, FL 32819 **Phone:** 1-407-313-4300 **Fax:** 1-407-313-4301

**Website:** [http://www1.hilton.com/en\\_US/hi/hotel/ORLOCHH-Hilton-Orlando-Florida/index.do](http://www1.hilton.com/en_US/hi/hotel/ORLOCHH-Hilton-Orlando-Florida/index.do)

**Special Symposium room rates (Book now, block rate may run out!):**

Singles (1 King Bed) \$90 Sept 29-30 / \$97 Oct 1-2 and Doubles/Twins (2 Queen Beds) \$90 Sept 29-30 / \$97 Oct 1-2

## TRACK DESCRIPTIONS

### Time-Distance Solutions | Track Chair: Dr. Jim Benford

Propulsion, Time/space manipulation and/or dilation, Near Speed of Light Navigation, Faster Than Light Navigation, Observations and sensing at Near Speed of Light or Faster Than Light

### Habitats and Environmental Science | Track Chair: Dr. Chris McKay

To have gravity or not, Space & radiation effects, Environmental toxins, Energy collection & use, Agriculture, Self-supporting environments, Optimal habitat sizing

### Biology and Space Medicine | Track Chair: Dr. Neal Pellis

Physiology in space, Psychology in space, Human life suspension (e.g., cryogenic), Medical facilities and capabilities in space, On-scene (end of journey) spawning from genetic material

### Education, Social, Economic and Legal Considerations | Track Chair: Dr. Mae Jemison

Education as a mission, Who goes, who stays, To profit or not, Economies in space, Communications back to Earth, Political ramifications, Round-trip legacy investments – assets left behind

### Destinations | Track Chair: Dr. Jill Tarter

Criteria for destination selection, What to take, How many destinations and missions, Probes versus journeys of faith

### Philosophical and Religious Considerations | Track Chair: Stewart Brand

Why go to the stars, moral and ethical issues, Implications of finding hospitable worlds; Implications of finding life elsewhere, Implications of being left behind

### Communication of the Vision | Track Chair: Dr. Harry Kloor

Storytelling as a means of inspiration, Linkage between incentives, Payback and investment, Use of movies, television and books to popularize long term research, long term journeys

## FRIDAY, SEPTEMBER 30, 2011

**Registration** **9:00 - 12:30**

**Welcome** **12:30 - 12:40**

**Speaker:** Dave Neyland, *DARPA Tactical Technology Office, Director*

**Welcome** **12:40 - 12:50**

**Speaker:** Pete Worden, *NASA Ames Research Center, Center Director*

**Keynote: Hacking Space Exploration** **12:50 - 1:15**

Ariel Waldman, *Spacehack.org*

**Break** **1:15 - 1:30**

**Time-Distance (Propulsion 1)** **1:30 - 3:10**

- 1:30 A Review of Interstellar Starship Designs  
R. Obousy, *Icarus Interstellar*
- 2:00 A Review of the Daedalus Main Propulsion System  
J. R. French, *Icarus Project*
- 2:20 Fusion Propulsion Comparison  
M. Stanic, *Icarus Interstellar*
- 2:40 Nuclear Thermal Propulsion  
S. Borowski, *NASA Glenn Research Center*

**Time-Distance (Starship Technologies 1)** **1:30 - 3:10**

- 1:30 Long Term Computing  
D. Homatas, *Project Icarus*
- 1:50 Ultra-High Specific Impulse Indium FEEP Thruster for Precursor Interstellar Exploration  
A. Genovese, *Thales Electron Devices GmbH*
- 2:10 Creating Materials for the Starship  
D. Weiss, *Eck Industries, Inc.*
- 2:30 A Necessary Condition for Practical Communications at Cosmic Distances  
S. Lazareanu
- 2:50 Initial Considerations in Exploring the Interstellar Roadmap  
R. Swinney

**Biology & Space Medicine** **1:30 - 3:10**

- 1:30 Track Introduction  
N. Pellis, *Universities Space Research Association*
- 1:40 Crowd-sourced R&D  
P. Baum, *European Commission - Joint Research Centre Institute for Prospective Studies*

2:10 Biomech. Simulation  
B. Gyss, *Biomechsys*

2:40 A Hypothesis on Biological Protection from Space Radiation Through the Use of New Therapeutic Gases  
M. Schoenfeld, *NASA*

**Education, Society, Legal and Economic** **1:30 - 3:10**

- 1:30 Track Introduction  
M. Jemison
- 1:40 Ethical Economics  
J. Blodgett, *Lifeboat Foundation*
- 1:50 A Bridge Too Far?  
L. Halprin
- 2:00 Space is Not White  
S.H. Riley

2:10 **PANEL: The Public Good**  
M. Jemison, *Moderator*  
  
American Sociopolitical Problems Impacting Starship-project Realization  
D. Cartsonis  
  
International and Interstellar Workings  
S. Clouston, *Clouston Energy Research, LLC*  
  
Where's the \_\_?  
E. Vinterhav, *SSC*  
  
A 100 Year World View  
A. Sinclair, *Leeward Space Foundation*

**Communication of the Vision** **1:30 - 3:10**

- 1:30 Science Fiction and the Big Questions  
M. O'Keeffe, *Bellarmino University School of Communication*
- 1:50 The Interstellar Vision: Principles and Practice  
P. Gilster, *Tau Zero Foundation*
- 2:10 Interstellar Flight, Imagination and Myth Creation as an Effective Means for Enduring Inspiration  
G.H. Padowitz
- 2:30 Utilizing Video Games  
L. Blaize
- 2:50 Together We Leap  
G. Gould, *Starship Collaborations*

**Break** **3:10 - 3:25**

**Time-Distance (Propulsion 1)** **3:25 - 4:45**

- 3:25 Nuclear Energy Space Propulsion  
T. Kammash, *University of Michigan*
- 4:05 Self Fueling Space Propulsion  
T. Kammash, *University of Michigan*

- 4:25 Pulsed Fusion Rocket: An Ultra High ISP Variable Thrust Deep Space Vehicle Powered by Inertial Confinement Fusion  
J.R. Orcutt, *University of Illinois - Urbana/Champaign*

## Biology & Space Medicine

3:25 - 4:25

- 3:25 Current and Future Implementations of Biorobotic Interfacing for Interstellar Travel  
A. Altomare
- 3:45 Making Aliens  
A. Andreadis
- 2:05 Enabling the 2nd Generation in Space: Building Blocks for Large Scale Space Endeavours  
D. Barnhart, *DARPA*

## Education, Society, Legal and Economic

3:25 - 4:45

- 3:25 The 34-Year Starship  
J. Nosanov, *NASA Jet Propulsion Laboratory*
- 3:35 A Look Back to Look Forward  
J. Baldini, *Baldini Resource Associates*
- 3:45 Technology, Society and Politics in the Next 100-300 Years - Implications for an Interstellar Flight  
A.M. Hein, *Icarus Interstellar*
- 3:55 PANEL: Background for 100 Year Starship  
M. Jemison, *Moderator*
- A 21st Century Interstellar Starship Study  
R. Obousy, *Icarus Interstellar*
- Ad Astra Incrementis  
M. Millis, *Tau Zero Foundation*

## Communication of the Vision

3:25 - 4:50

- 3:25 Comparison of Historic Exploration  
W. Rankin, *University of Central Missouri*
- 3:45 Our Future in Space  
M. Bishara, *Sentient Digital Consulting Group, LLC*
- 4:50 Interstellar Colonization and Multi-Generation Spaceships: Getting There is Half the Fun  
A. Andrews

## Demonstrations

4:25 - 4:50

- 4:25 Luna Bots
- 4:50 VTC School Project Report via Skype

## Break

4:45 - 5:00

## Science Fiction Writers Panel

5:00 - 6:00

### Participating Authors:

- Stephen Baxter
- Gregory Benford
- Geoffrey A. Landis
- Robert J. Sawyer
- Allen Steele

**Moderator:** Gay Haldeman

## Meet and Greet - Lobby Bar

6:00 - 6:30

## Dinner Break

6:30 - 7:30

## Social Event/Film

7:30 - 10:00

## SATURDAY, OCTOBER 1, 2011

## Plenary

8:30 - 9:15

**Speaker:** George Whitesides, *Virgin Galactic President & CEO*

## Break

9:15 - 9:45

## Time-Distance (Propulsion 2)

9:45 - 11:00

- 9:45 Modular Aneutronic Fusion Engine for an Alpha Centauri Mission  
M. Paluszek, S. Hurley, S. Cohen, *Princeton University*
- 10:05 Fission-Fusion Hybrid Fuel for Interstellar Propulsion  
R. Freeland, *Icarus Interstellar*
- 10:25 Evolutionary Lightsailing Missions for 100 YSS  
L. Friedman, *Planetary Society*, D. Garber, *Millennium Space Systems Inc*, T. Heinsheimer, *Colbaugh & Heinsheimer Consulting, Inc*

## Time-Distance (Exotic Technologies)

9:45 - 10:45

- 9:45 Millis, Space Drive Physics, Intro & Next Steps  
M. Millis, *Tau Zero Foundation*
- 10:15 Warp Field Mechanics 101  
H. White, *NASA Johnson Space Center*

## Habitats and Environmental Science

9:45 - 10:45

- 9:45 ISS Life Support Lessons Learned  
M. Roman, *NASA Marshall Space Flight*
- 10:05 Artificial Lighting for Self-Sustaining Long Distance Space Flight  
M. Hyvärinen, *Aalto University*
- 10:25 Electrical Power Issues  
G. Landis, *NASA Glenn Research Center*

## Education, Society, Legal and Economic

9:45 - 10:45

- 9:45 The Wait Calculation  
A. Kennedy
- 9:55 Interstellar Sweat Equity  
M.M. Cohen, *International Space Development Authority Corp.*

- 10:05 PANEL: Organization, Operations and Tech Development En Route 1  
M. Jemison, *moderator*
- Building a Bridge to the Stars  
R. Handberg, *University of Central Florida*

The Culturisation of Space as a Cornerstone in the Space/Society Domain

M. Peljhan, *University of California, Santa Barbara*

Icarus Interstellar's New Icarus Institute for Interstellar Sciences

IIIS, B. Cress, *Icarus Interstellar*

Exploratory Research for an Interstellar Mission – Technology Readiness, Stakeholders and Research Sustainability

A.M. Hein, K. Long, *Icarus Interstellar*

## Philosophical & Religious

9:45 - 10:45

9:45 Track Introduction

S. Brand, *Long Now Foundation*

9:55 Curiosity, Serenity and “Will-less Thinking”

G. Becker, *Jagiellonian University Krakow, Poland*

10:15 To Humbly Go...Breaking Previous Patterns of Colonization

W.R. Kramer, *Hawaii Research Center for Futures Studies*

## Destinations

9:45 - 10:45

9:45 Visiting the Neighbors

J. Tarter, *SETI*

10:05 PANEL: Summary of Icarus Project Contributions to the Selection of Destination

Tarter, *Moderator*

Navigational and Guidance Requirements of an Interstellar Spacecraft

R. Swinney

Target Selection

I. Crawford, *Project Icarus/Birkbeck College London*

Scientific Objectives

I. Crawford, *Project Icarus/Birkbeck College London*

Exoplanet Studies for Potential Icarus

Destination Stars

A. Hale, *Icarus Interstellar*

## Break

10:45 - 11:00

## Time-Distance (Propulsion 2)

11:10 - 11:50

11:10 Light Sailing to the Stars

G.L. Matloff, *New York City College of Technology*

11:30 Recent Developments in Interstellar Beam-Driven Sails

J. Benford, *Icarus Interstellar*

## Time-Distance (Exotic Technologies)

11:00 - 11:40

11:00 Faster-Than-Light Space Warps, Status and Next Steps

E. W. Davis, *Institute for Advanced Studies at Austin & Tau Zero Foundation*

11:20 The Role of the Quantum Vacuum in Space Travel

G.J. Maclay, *Quantum Fields, LLC*

## Habitats and Environmental Science

11:00 - 11:40

11:00 Heat Recyclers

D. Sheehan, *University of California, San Diego*

11:20 ISS Habitability

B. Steitz, *NASA Johnson Space Center (invited)*

## Education, Society, Legal and Economic

11:00 - 11:50

11:00 PANEL: Organization, Operations and Tech Development En Route 2

M. Jemison, *Moderator*

Publicly Open Virtualized Gaming Environment for Simulation of All Aspects Related to “100 Year Starship Study”

V. Astakhov, T. Astakhova, *University of California, San Diego*

Nature's Way of Making Audacious Space Projects Viable

P. Metzger, *NASA Kennedy Space Center*

Using the 100-Year Starship Study to Foster Near-Term Revolutionary Technologies

R. Terrile, *Jet Propulsion Lab/California Tech*

Software Resilience in the 100 Year Starship

D. A. Dulo, *US Naval Postgraduate School*

## Philosophical & Religious

11:00 - 11:40

11:00 Spirit & Exploration

K. Nebergall, *Day Five, LLC*

11:20 The Longest Journey

A. Sinclair, *Leeward Space Foundation*

## Destinations

11:00 - 11:40

11:00 Small Body Exploration Technologies as Precursors for Interstellar Robotics

R. Noble, *SLAC National Accelerator Laboratory, Stanford University*

11:20 Colonization of Mars via Initial One-Way Mission

D. Schulze-Makuch, *WSU*

## Lunch

11:50 - 12:50

## Time-Distance (Propulsion 2)

12:50 - 2:30

12:50 A Sustainable Developmental Pathway of Photon Propulsion Towards Interstellar Flight

Y.K. Bae, *Y.K. Bae Corp.*

1:10 Mass Beam Propulsion, an Overview

G.D. Nordley

1:30 PANEL DEBATE: What's the Best Way Forward for Starship Propulsion?  
Benford (*Moderator*), Kammash, Obousy, Friedman, Borowski

2:10 Mission Architectures for Achieving 0.1-0.2c Velocities  
R. Adams, NASA

## Time-Distance (Exotic Technologies)

12:50 - 2:30

12:50 Quantised Inertia and FTL  
M. McCulloch, *University of Plymouth, UK*

1:10 Quantum Effects  
S.P. Braham, *Simon Fraser University*

1:30 The Starship Challenge  
O. Christea, *BITNETT CCSS, Romania*

1:50 Cockpit Considerations for Inertial Affect and FTL Propulsion  
M.G. Millis, *Tau Zero Foundation*

2:10 Low Power Warp Drive  
J. Sarfatti, *ISEP*

## Habitats and Environmental Science

12:50 - 2:30

12:50 Terraforming Planets, Geoengineering Earth  
J.R. Fleming, *Colby College*

1:10 Algae 360 Microfarms  
M. Edwards, *Arizona State University*

1:30 Is Natural Enough?  
T. Thompson, *Indiana University School of Informatics*

1:50 Org. of Long-term Interstellar Distributed Digital Preservation Networks  
M. Halbert, *MetaArchive Coop. and University of North Texas*

2:10 Information Transmission, Sharing and Preservation over a Long Time in Interstellar Flight  
T. Svoboda

## Education, Society, Legal and Economic

12:50 - 2:30

12:50 Structuring the 100-Year Starship Program for Success  
J. Kallimani, *RAND Corporation*

1:00 A Century and Beyond  
N. Kutac, *Endurance Project*

1:10 Strategic Roadmap for the Development of an Interstellar Space Program  
M. Gifra, *Homo Spaciens Initiative*

1:20 PANEL: Structuring the 100 Year Starship  
M. Jemison, *Moderator*  
Strategy to Stars  
L. Joe

Starflight Academy - Education in Interstellar Engineering  
A. Tziolas, *Icarus Interstellar*

Non-traditional Approaches to the Organization of Long-Term Technical Programs  
D.R. Glover

Governance and Design Models: Proven, Successful Models for Growth and Sustainability  
M. Beyster, *The Foundation for Enterprise Development*

Models for Space Profit in the Long-Term  
C. Alberts

Strategic Application of Uncertainty Management Principles to Promote Socialization of an Agile Acquisition System  
R. Graves, *Quartermoon Consulting Services*

## Philosophical & Religious

12:50 - 2:10

12:50 Did Jesus Die for Klingons Too?  
C. Weidemann, *Ruhr-University Bochum, Germany*

1:10 A Religious Vision for Interstellar Travel?  
M. Waltemathe, *Ruhr-University Bochum, Germany*

1:30 Sacred Space: A Beginning Framework for the Off-Planet Church  
T.K. Hoffmann

1:50 Religion in SETI  
R. Pay, *SETI*

## Destinations

12:50 - 12:20

12:50 Hostile Journey and Destination - Yes. But Weapons?  
J. Tarter, *SETI*

1:00 Ultimate Destination  
D. Silin, *Royal Astronomical Society of Canada*

1:20 Destination for Colonization  
E. Salazar

1:40 The Artificial Planet  
D. Glover

2:00 Sun Focus Comes First, Interstellar Comes Second  
C. Maccone, *International Academy of Astronautics & Tau Zero Foundation*

## Break

## Time-Distance (Propulsion 2)

2:45 - 4:25

2:45 Finding Our Way  
M. Arman

3:05 Pulsar Navigation and Maser Navigation in 100 Year Starship  
D. Jiang, *YunNan Astronomical Observatory*

- 3:25 Lightsail Dust Damage  
J. Early
- 3:45 How an Embryo Space Colonization (ESC) Mission Solves the Time-Distance Problem  
A. Crowl, J. Hunt, *Icarus Interstellar*
- 4:05 Machine Learning and the Starship - A Match Made in Heaven  
P. Galea, *Icarus Interstellar*

## Time-Distance (Exotic Technologies) 2:45 - 3:35

- 2:45 PANEL DEBATE: Can Exotic Science Lead to Starship Propulsion?  
Cramer (*Moderator*), Millis, White, Davis, Nordley

## Habitats and Environmental Science 2:45 - 4:25

- 2:45 MMOD Sensorized Shield  
L. Barilaro, *University of Padova, Italy*
- 3:05 Starship Repairs  
K.M. Berry, *Legendary Projects*
- 3:25 Non-Gaussian Radiation Shielding  
B.T. Solomon, *iSETI, LLC*
- 3:45 Enabling the 2nd Generation in Space: Building Blocks for Large Scale Space Endeavours  
D. Barnhart, *DARPA*

- 3:45 Wrap Up Panel & Systems Engineering Overview  
C. McKay, *Moderator*

## Education, Society, Legal and Economic 2:45 - 4:15

- 2:45 To Profit or Not  
G. Putnam
- 2:55 Wealth Preservation  
R. Frieser
- 3:05 The Financing of Interstellar Missions  
S. Reynoso, *Space Economics Institute (in formation)*

- 3:15 PANEL: Financing the 100 Year Starship  
M. Jemison, *Moderator*
- Investment Financing of Voyages of Discovery and Settlement - Historical Examples and Building Foundations for Future Starships  
E. Lark
- Starship Affordability  
F. Eilingsfeld, *PRICE Systems LLC*
- Organizing and Financing Interstellar Space Projects - A Bottom-up Approach  
F.S. Ceyssens
- Future ET Banking & Finance  
D. Plisek

- 4:05 Creating Long Term Income Streams for the 100 Year Starship Study Initiative  
A. Sylvester

## Philosophical & Religious 2:45 - 4:15

- 2:45 Inertia of Past Futures  
K. Denning, *York University, Canada*
- 3:15 Out of the Cradle: Anthropological Background and Process  
V. Fert, *GMAP*
- 3:45 A Moral Imperative  
J.N. Nielsen

## Destinations 2:45 - 4:15

- 2:45 Extrasolar Planets  
J. Coughlin, *New Mexico State University*
- 3:05 Dispersal Strategies  
F. Maggiore
- 3:25 Colony Destination  
C.L. Frame, *General Space Company*
- 3:45 Star Probes and ET Intelligence  
S. Baxter
- 4:05 Windup: What Does the Cost/Trade Study Look Like at This Point?  
J. Tarter, *SETI*

## Break 4:25 - 5:00

## Science Fiction Writers Panel 5:00 - 6:00

### Participating Authors:

- Elizabeth Bear
- Joe Haldeman
- G. David Nordley
- Charles Stross
- Vernor Vinge

**Moderator:** Gay Haldeman

## Dinner Break 6:00 - 8:00

## Special Event and Spider Robinson's "Callahan's Crosstime Saloon" 8:00 - 10:00

100 YSS symposium attendees who are registered guests at the Hilton will have an opportunity to sign up for an entertaining evening of multidimensional story-telling and merriment in the spirit of Spider Robinson's "Callahan's Crosstime Saloon." Regale your peers with your best tall-tale yarns - with a special prize for the peer-voted best stories of the night. Read Spider's book and come prepared! This is an exclusive, limited attendance event.

## SUNDAY, OCTOBER 2, 2011

**Track Chair Panel****8:30 - 10:00**

- Dr. Jim Benford
- Dr. Chris McKay
- Dr. Neal Pellis
- Dr. Mae Jemison
- Dr. Jill Tarter
- Stewart Brand
- Dr. Harry Kloor

**Moderator:** David Neyland, *DARPA Tactical Technology Office*

**Organizations Panel****10:00 - 11:30**

- James Schalkwyk, *University of Cape Town*
- Alexander Wong, *Yoyodyne General Systems*
- Mary Ann Beyster, *Foundation for Enterprise Development*
- Ricky Ng-Adam, *Xin Che Jian Hackerspace*
- Jason Batt, *Capital Christian Center*
- Robin Schoemaker, *The Netherlands Organization for Applied Scientific Research TNO*
- Tan Huei Ming, *National University of Singapore*
- Bruce Kogut, *Columbia University*
- Matt Bille, *Booz Allen Hamilton*

**Moderator:** Paul Eremenko, *DARPA*

**Break****11:30 - 11:45****Communicating the Vision Panel****11:45 - 12:30**



**FRIDAY, SEPTEMBER 30, 2011**

09:00-12:30	Registration				
12:30-12:40	Welcome: Dave Neyland, DARPA Tactical Technology Office, Director				
12:40-12:50	Welcome: Pete Worden, NASA Ames Research Center, Center Director				
12:50-13:15	Keynote: Hacking Space Exploration, Ariel Waldman, Spacehack.org				
13:15-13:30	Break				
13:30-15:10	Time-Distance (Propulsion 1)	Time-Distance (Starship Technologies 1)	Biology & Space Medicine	Education, Society, Legal and Economic	Communication of the Vision
15:10-15:25	Break				
15:25-16:45	Time-Distance (Propulsion 1)	Time-Distance (Starship Technologies 1)	Biology & Space Medicine	Education, Society, Legal and Economic	Communication of the Vision
16:45-17:00	Break				
17:00-18:00	Science Fiction Writers Panel: Stephen Baxter, Gregory Benford, Geoffrey A. Landis, Robert J. Sawyer, Allen Steele, Moderator: Gay Haldeman				
18:00-18:30	Meet and Greet - Lobby Bar				
18:30-19:30	Dinner Break				
19:30-22:00	Social Event				

**SATURDAY, OCTOBER 1, 2011**

07:30-08:30	Registration					
08:30-09:15	Plenary Speaker: George Whitesides, Virgin Galactic President & CEO					
09:15-09:45	Break					
09:45-10:45	Time-Distance (Propulsion 2)	Time-Distance (Exotic Technologies)	Habitats	Education, Society, Legal and Economic	Philosophical & Religious	Destinations
10:45-11:00	Lunch Break					
11:00-11:50	Time-Distance (Propulsion 2)	Time-Distance (Exotic Technologies)	Habitats	Education, Society, Legal and Economic	Philosophical & Religious	Destinations
11:50-12:50	Break					
12:50-16:30	Time-Distance (Propulsion 2)	Time-Distance (Exotic Technologies)	Habitats	Education, Society, Legal and Economic	Philosophical & Religious	Destinations
16:30-14:45	Break					
14:45-16:25	Time-Distance (Propulsion 2)	Time-Distance (Exotic Technologies)	Habitats	Education, Society, Legal and Economic	Philosophical & Religious	Destinations
16:25-17:00	Break					
17:00-18:00	Science Fiction Writers Panel: Elizabeth Bear, Joe Haldeman, G. David Nordley, Charles Stross, Vernor Vinge, Moderator: Gay Haldeman					
18:00-20:00	Dinner Break					
20:00-22:00	Callahan's Crosstime Saloon					

**SUNDAY, OCTOBER 2, 2011**

08:30-09:15	Track Chair Reports: Dr. Jim Benford, Dr. Chris McKay, Dr. Neal Pellis, Dr. Mae Jemison, Dr. Jill Tarter, Stewart Brand, Dr. Harry Kloor				
09:15-10:45	Communicating the Vision Panel				
10:45-11:00	Break				
11:00-11:30	Organization Panel: James Schalkwyk, Alexander Wong, Mary Ann Beyster, Ricky Ng-Adam, Jason Batt, Robin Shoemaker, Tan Huei Ming, Bruce Kogut, Moderator: Paul Eremenko				