



# The 64<sup>th</sup> Israel Annual Conference on Aerospace Science

Thursday 20 March, 2025

## PROGRAM

| Event  | Time/Venue   |
|--|--|
| <ul style="list-style-type: none"><li>• Opening</li><li>• Plenary Lectures</li><li>• Lunch</li><li>• Exhibition stands of IACAS sponsors</li></ul> | 9:00-13:30<br><b>Churchill Hall,<br/>the Technion</b>                |
| <ul style="list-style-type: none"><li>• Regular Sessions</li></ul>   | 13:30-18:00<br><b>Faculty of Aerospace<br/>Engineering, Technion</b> |

### sponsors and supporters





## IACAS-2025 Program - Table of Content

| Thursday 20.3.2025              |   | Technion, Haifa       |
|---------------------------------|---|-----------------------|
| Time/Code                       | Session   | Hall                  |
| <b>8:45-12:00</b>               |   |                       |
| 9:00-9:10                       | Welcoming Address: Prof. Uri Sivan, Technion President  | <b>Churchill Hall</b> |
| 9:10-9:15                       | IACAS Opening: Dr. Judith Hocherman-Frommer, Chair IACAS-2025   |                       |
| 9:15-10:05                      | Colonel (Res.) Dror Ben-David   |                       |
| <b>Coffee Break 10:05-10:30</b> |   |                       |
| 10:30-11:20                     | Professor Wei Shyy, Chair Professor at the Hong Kong University of Science and Technology (Guangzhou) |                       |
| 11:20-12:10                     | David A. Vallado, Senior Research Astrodynamist, COMSPOC  |                       |
| <b>Lunch 12:10-13:30</b>        |   |                       |
| <b>13:30-15:30</b>              |   |                       |
| <a href="#">ThL1T1</a>          | Guidance, Navigation, and Control   | A                     |
| <a href="#">ThL1T2</a>          | Computational Fluid Dynamics  | B                     |
| <a href="#">ThL1T3</a>          | Flow Stability and Control I  | C                     |
| <a href="#">ThL1T4</a>          | Propulsion and Combustion   | D                     |
| <a href="#">ThL1T5</a>          | Aerodynamics & Aeroacoustics  | E                     |
| <a href="#">ThL1T6</a>          | Aeroelasticity & Fluid-Structure Interaction  | F                     |
| <a href="#">ThL1T7</a>          | Astrodynamics and Space Systems I   | G                     |
| <a href="#">ThL1T8</a>          | Aerospace Design  | H                     |
| <b>Coffee Break 15:30-16:00</b> |   |                       |
| <b>16:00-18:00</b>              |   |                       |
| <a href="#">ThL2T1</a>          | Propulsion, Combustion and Energy Systems   | A                     |
| <a href="#">ThL2T2</a>          | Flow Stability and Control II   | B                     |
| <a href="#">ThL2T3</a>          | Aerospace Systems and MDO   | C                     |
| <a href="#">ThL2T4</a>          | AI and Autonomy   | D                     |
| <a href="#">ThL2T5</a>          | Aerodynamics, Hydrodynamics and Aeroacoustics   | E                     |
| <a href="#">ThL2T6</a>          | Astrodynamics and Space Systems II  | F                     |
| <a href="#">ThL2T7</a>          | Solid Mechanics and Aerospace Materials   | G                     |



[Click here for Session Halls Map at the Faculty of Aerospace Engineering](#)





## Keynote Lectures

9:15-10:05

ThPI1

Colonel (Res.) Dror Ben-David

### **The seven trends that will shape our skies**

Chair: Dr. Judith Hocherman-Frommer

#### **About Colonel (Res.) Dror Ben-David**

Colonel (Res.) Dror Ben-David served 27 years in the Israeli Air Force. commander of F16 and F15 squadrons. Head of the operational requirement department. B.A. in Physics with excellence, Technion. Currently, head of Neural Networks R&D Labs at Matrix IT, Israeli National Drone Initiative - Subject Matter Expert for operations. Autonomous Public Transportation SME. Civil Aviation - Cyber resilience SME, Israeli rep at ICAO.



Professor Wei Shyy

**Low altitude air mobility, low orbit satellites: opportunities, challenges and sustainability**

Chair: Distinguished Professor Emeritus Daniel Weihs

In the present era of fast emergence and advancement of innovative ideas and new technologies, we are seeing unprecedented opportunities as well as challenges. In the civilian aerospace sector, low orbit satellites of altitude up to 2,000 km, equipped with advanced sensing and communication capabilities; and low altitude air mobility, including drones, un-crewed and crewed aerial vehicles, from ground to around 2 km, are two fast moving fronts. Individually and collaboratively, they present new frontiers in the global and regional contexts, including sustainability, commerce, emergency response and risk mitigation. In this lecture, examples will be presented along with technical issues to highlight implications and issues associated with these developments.

**About Professor Wei Shyy**

Professor Wei Shyy is a Chair Professor at the Hong Kong University of Science and Technology (Guangzhou). He was President of the Hong Kong University of Science and Technology and Chair Professor of Mechanical and Aerospace Engineering. Prior to joining HKUST in 2010, he was Clarence L. “Kelly” Johnson Collegiate Professor and Chairman of the Department of Aerospace Engineering of the University of Michigan.

He was the Principal Investigator of several multi-institutional research projects, funded by the US Government and industries, on future space transport, bio-inspired flight, and computational aero-science. He is General Editor of the Cambridge Aerospace Book Series published by the Cambridge University Press; and Co-Editor-in-Chief of Encyclopedia of Aerospace Engineering, a major reference work published by Wiley-Blackwell.

Professor Shyy is an elected member of Academia Sinica (Taipei), an agenda contributor of the World Economic Forum, and Fellow of the American Institute of Aeronautics and Astronautics (AIAA). He has received awards for his research and professional contributions, including the AIAA 2003 Pendray Aerospace Literature Award, the ASME 2005 Heat Transfer Memorial Award, and The Engineers’ Council (Sherman Oaks, CA) 2009 Distinguished Educator Award. In 2021, the French Government made him an Officer of the Legion of Honor. In 2023, the International Conference on Computational & Experimental Engineering and Sciences (ICCES) honored him the Satya N. Atluri Award.





## Plenary Lectures

11:20-12:10

ThPI3

Lt Col (USAF Ret.) David A. Vallado, Senior Research  
Astrodynamist, COMSPOC

### **Challenges to Accurate LEO Satellite Prediction**

Chair: Dr. Vladimir Martinusi

Accurate propagation of Low Earth Orbiting satellites is increasingly important for conjunction analyses as the region becomes more densely populated. Standard perturbation force models are successfully used for Orbit Determination to produce accurate epoch states. But what happens as these states are predicted into the future? The uncertainty increases rapidly, somewhat independent of the accuracy of the initial state. I review the dominant perturbing forces and focus on gravity and atmospheric drag as sources of the increased uncertainty in prediction.

#### **About David A. Vallado**

Lt Col (USAF Ret.) David A. Vallado is currently working as a Senior Research Astrodynamist with COMSPOC in the Center for Space Standards and Innovation. He is the author of the advanced astrodynamics textbook, *Fundamentals of Astrodynamics and Applications* (5th edition, Microcosm, 2022). He is a Fellow in the American Astronautical Society (2006).

He attended the United States Air Force Academy and majored in Astronautical engineering, receiving his Bachelor of Science in 1980. Lt Col Vallado earned a Masters of Science in Systems Management from the University of Southern California in 1982. He then attended the Air Force Institute of Technology (AFIT), where he earned a Masters of Science in Astronautical Engineering in 1984.

His AF assignments include serving as a Project Officer for Stage I of the PEACEKEEPER missile, analysis for the Strategic Air Command Staff at the 544th Strategic Intelligence Wing, an instructor in the Department of Astronautics at the US Air Force Academy, several research scientist activities at AFRL, and analysis at US Space Command. After retiring from the Air Force, he was a principal engineer with Raytheon Intelligence and Information Systems in Denver CO and an Astrodynamics Researcher with Analytical Graphics Inc.

An avid mountain climber, he has hiked all 58 mountains in Colorado over 14000 feet, twice. Dave's other interests include jogging, biking, woodworking, house construction, classical piano, swimming, and square dancing.



ThL1T1

Hall A

## Guidance, Navigation and Control

Chair: Daniel Choukroun

Ben-Gurion University of the Negev

Co-Chair: Ilan Rusnak

Rafael

13:30-13:50

ThL1T1.1

### Optimal pure-pursuit guidance law with uncertain time-of-flight

Ilan Rusnak

Rafael

13:50-14:10

ThL1T1.2

### Symmetry-constrained formation maneuvering

Zamir Martinez

Technion

Daniel Zelazo

Technion

14:10-14:30

ThL1T1.3

### Missile guidance with doppler information only in 3D

Ilan Rusnak

Rafael

Liat Peled-Eitan

Rafael

14:30-14:50

ThL1T1.4

### A New atmospheric disturbances estimation method for rotorcraft

Sergey Nazarov

Technion

Per-Olof Gutman

Technion

14:50-15:10

ThL1T1.5

### Error analysis of a dual quaternion batch estimator

Caitong Peng

Ben-Gurion University of the Negev

Daniel Choukroun

Ben-Gurion University of the Negev

15:10-15:30

ThL1T1.6

### Midcourse guidance for hypersonic glide vehicle interception

Michael Urman

Technion

Oded Golan

Technion

Vitaly Shaferman

Technion



ThL1T2

Hall B

## Computational Fluid Dynamics

Chair: Vassilis Theofilis

Technion

13:30-13:50

ThL1T2.1

Ablation Computational Simulation using Ansys Fluent

Dvir Mendler  
Sunil Chadha

Ansys  
Ansys

13:50-14:10

ThL1T2.2

Flow simulation of waveriders at off-design conditions

Angelos Klothakis  
Ioannis Nikolos  
Vassilis Theofilis

Technical University of Crete  
Technical University of Crete  
Technion

14:10-14:30

ThL1T2.3

Wall Function LES using Fluent GPU solver and Fluent Rapid Octree mesh

Dvir Mendler

Ansys

14:30-14:50

ThL1T2.4

Very large eddy simulations of the flow within a F-35's  
weapon bay with an internal store

Ron Efrati  
Hadar Ben-Gida

Israeli Air Force  
Israeli Air Force

14:50-15:10

ThL1T2.5

Terrain Ridgelines Detection Based on Streamlines

Baruch E. Karlin



ThL1T3

Hall C

## Flow Stability and Control I

Chair: Michael Karp

Technion

Co-Chair: Alexandros Terzis

Technion

13:30-13:50

ThL1T3.1

Analytical flow solutions in rectangular microfluidic channels based on the darcy-brinkman model

Mario Del Mastro

Technion

Alexandros Terzis

Technion

13:50-14:10

ThL1T3.2

Stability analysis of the non-isentropic one-dimensional flow in a scramjet isolator

Shahaf Haiman

Technion

Michael Karp

Technion

14:10-14:30

ThL1T3.3

Linear stability of a weak viscous shock layer

Vassilis Theofilis

Technion

14:30-14:50

ThL1T3.4

Stability analysis of forced and unforced flow fields around cylinders in crossflow

Doron Schwartz

Technion

Michael Karp

Technion

14:50-15:10

ThL1T3.5

Particle clustering and turbulence modulation in eulerian particle-laden flow simulations

AJAY DHANKARGHARE

Technion

Yuval Dagan

Technion

15:10-15:30

ThL1T3.6

Investigation of oil flow topology, pressure distribution, and drag in separated flow over low-Reynolds-number airfoil

Roi Baruch

Technion

Igal Gluzman

Technion





ThL1T4

Hall D

## Propulsion and Combustion

Chair: Dan Michaels

Technion

Co-Chair: Eran Sher

Technion

13:30-13:50

ThL1T4.1

### Pressure effect on the burning rate of solid propellants with expandable graphite additives

Noa Edri

Technion

Alon Gany

Technion

13:50-14:10

ThL1T4.2

### Investigating a gun-launched solid fuel ramjet projectile

Itamar Levitan

Technion

Alon Gany

Technion

14:10-14:30

ThL1T4.3

### Enhancing water-breathing ramjet performance with boron additive

Sagi Dinisman

Technion

Alon Gany

Technion

14:30-14:50

ThL1T4.4

### Experimental study of mode transition in a cavity-based dual-mode scramjet combustor

Alexander Dolnik

Technion

Dan Michaels

Technion

14:50-15:10

ThL1T4.5

### Hydrogen propulsion: the fundamental equation for H<sub>2</sub> in its liquid, saturated, and gaseous states

Eran Sher

Technion

Shir Levi

Technion

15:10-15:30

ThL1T4.6

### Computer Vision Approach for Analysis of Numerical and Experimental Detonation Cellular Structure Images

Daniel Jalontzki

Tel Aviv University

Alon Zussman

Tel Aviv University

Guni Sharon

Texas A&M University

Sumedh Pendurkar

Texas A&M University

Yoram Kozak

Tel Aviv University



## Aerodynamics & Aeroacoustics

Chair: Oksana Stalnov Elbit Systems  
 Co-Chair: Hadar Ben-Gida Technion

13:30-13:50 ThL1T5.1

### Water sheet breakup dynamics and spray characterization for confined leading-edge cooling

Alexandros Peteinaris Technion  
 Alexandros Terzis Technion

13:50-14:10 ThL1T5.2

### Characterizing the aerodynamic degradation of a damaged UAV pusher propeller

Elad Bar On Technion  
 Yosef Pikel Israeli Air Force  
 Hadar Ben-Gida Israeli Air Force

14:10-14:30 ThL1T5.3

### Swept and tapered wing in dynamic motion

Sarah Sullivan Rensselaer Polytechnic Institute  
 Evan Mahns Rensselaer Polytechnic Institute  
 Miki Amitay RPI

14:30-14:50 ThL1T5.4

### Optimizing drones delivery path for low-noise flight

Barak Deutscher Technion  
 Oksana Stalnov Elbit Systems  
 Hadar Ben-Gida Technion

14:50-15:10 ThL1T5.5

### Experimental analysis of a vibro-acoustic response of an airborne structure to boundary layer excitation

Maayan Naschletashvili Technion  
 Oksana Stalnov Elbit Systems  
 Hadar Ben-Gida Technion

15:10-15:30 ThL1T5.6

### Sustainable flight and maneuverability of guided projectiles at transonic speeds via circulation control

Dor Polonsky Rafael  
 Gali Alon Tzezana Rafael  
 Alon Dahan Rafael



ThL1T6

Hall F

## Aeroelasticity & Fluid-Structure Interaction

Chair: Maxim Freydin

Technion

Co-Chair: Moti Karpel

Technion

13:30-13:50

ThL1T6.1

### Static aeroelasticity and stability of very flexible swept wings

Bar Revivo

Technion

Daniella Raveh

Technion

13:50-14:10

ThL1T6.2

### Aeroelasticity of plates in supersonic channel flow

Maxim Freydin

Technion

14:10-14:30

ThL1T6.3

### Experimental investigation of the F-16 shock buffet with comparison to flight tests

Tzvil Nahom Jidovetski

Israeli Air Force

Michael Iovnovich

Israeli Air Force

Daniella Raveh

Technion

14:30-14:50

ThL1T6.4

### Aeroelastic coupling of hard maneuvering aircraft

Dor Naftaly

Israeli Air Force

Daniella Raveh

Technion

14:50-15:10

ThL1T6.5

### Numerical simulation of flutter flight tests using the parametric flutter margin method

Guy Gordon Biberstein

Technion

Moti Karpel

Technion

15:10-15:30

ThL1T6.6

### Advancements in in-flight aeroelastic sensing: real-time prediction of deflection, load, and rigid angle of attack using machine learning from ground test data

Ido Hauzer

Technion

Daniella Raveh

Technion



ThL1T7

Hall G

## Astrodynamics and Space Systems I

Chair: Vladimir Martinusi Technion  
 Co-Chair: Alexander Batkhin Technion

13:30-13:50 ThL1T7.1

### Network of symmetric periodic families in the Hill 3-body problem

Alexander Batkhin Technion

13:50-14:10 ThL1T7.2

### Uncertainty propagation using Riemannian geometry

Vladimir Martinusi Technion

14:10-14:30 ThL1T7.3

### Constant-magnitude low-thrust orbital transfer with final-approach targeting

Michal Pushkov Technion

SHRIBHARATH BALAKRISHNAN Technion

Pini Gurfil Technion

14:30-14:50 ThL1T7.4

### Optimal control for a stationary solar sail around L1'

Naama Gilat Technion

Oded Golan Technion

Vitaly Shaferman Technion

14:50-15:10 ThL1T7.5

### Technical requirements for optical sensors in autonomous space situational awareness

Yuval Hammer Braude

Ido Ben Harosh Braude

Ivan Goncharov Braude

Ira Wolfson Braude

Elad Denenberg Braude Academic College of Engineering

15:10-15:30 ThL1T7.6

### Satellite Signals-of-Opportunity-Based Navigation: From Simulation to Real-World Implementation

Alex Frid Technion

Carlos Caravaca-Gallego Technion

Pini Gurfil Technion





ThL1T8

Hall H

## Aerospace Design

Chair: Ilan Berlowitz

IBAero

Co-Chair: Ariel Dvorjetski

TBD

13:30-13:50

ThL1T8.1

### Electro-hydrostatic actuation and steering system for nose landing gear

Ilan Berlowitz

IBAero

13:50-14:10

ThL1T8.2

### Comparative analysis of aircraft freighter conversion strategies

Ilan Berlowitz

IBAero

14:10-14:30

ThL1T8.3

### Development of regional aircraft composite leading edge for bird strike sustainability - a methodology review

Yahav Angel

Israel Aerospace Industries

Adam Sawday

IAI

Eduardo Eigenberg

Israel Aerospace Industries

14:30-14:50

ThL1T8.4

### Helicopter engine's power estimation using regular flight data

Ariel Dvorjetski

Israeli Air Force

Liron Darhi

Israeli Air Force

Aperstein Yehudit

Afeka College of Engineering



ThL2T1

Hall A

## Propulsion, Combustion and Energy Systems

Chair: Moshe Zilberman

Azieli Academic College of Engineering

Co-Chair: David Yanuka

Technion

16:00-16:20

ThL2T1.1

### Collision coalescence study of impinging spray jets

Ariel Sharon

Technion

Yeshayahou Levy

Technion

16:20-16:40

ThL2T1.2

### Optimizing the performance of Savonius vertical axis wind turbines for use in urban high-rise buildings and rural locations

Moshe Zilberman

Azieli Academic College of Engineering

16:40-17:00

ThL2T1.3

### Simplified modeling of constrictor plasma at the Technion arc heated wind tunnel

David Yanuka

Technion

17:00-17:20

ThL2T1.4

### Hydrogen Generation from Water and Aluminum with different additives

Elinor Kostjukovsky

Technion

Alon Gany

Technion



ThL2T2

Hall B

## Flow Stability and Control II

Chair: Igal Gluzman

Technion

Co-Chair: Hadar Ben-Gida

Technion

16:00-16:20

ThL2T2.1

### Lattice Boltzmann method simulations of the laminar flow in a two-dimensional double cavity configuration

Itamar Blumenfeld

Technion

Hadar Ben-Gida

Technion

16:20-16:40

ThL2T2.2

### Wake measurements of heavy vehicle rear-end models with custom-designed passive flow control devices

Niv-Haim Mizrahi

Tel Aviv University

Elizaveta Dubrovskaya

Tel Aviv University

Ofek Katz

Tel Aviv University

Yarden Turgeman

Tel Aviv university

Alex Liberzon

Tel Aviv University

Oksana Stalnov

Elbit Systems

16:40-17:00

ThL2T2.3

### Linear stability of complex compressible cavity flows

Vojtech Pezlar

Czech Technical University in Prague

Marlon Mathias

University of Sao Paulo

Vassilis Theofilis

Technion

Marcello Augusto Faraco Medeiros

University of Sao Paulo

17:00-17:20

ThL2T2.4

### Instability and transition of the flow over a surface gap

Victor Barcelos Victorino

University of Sao Paulo

Felipe Oliveira Aguirre

University of Sao Paulo

Marcello Augusto Faraco Medeiros

University of Sao Paulo





17:20-17:40

ThL2T2.5

**Mach effect on instability and transition of the flow over a surface gap**

Felipe Oliveira Aguirre

University of Sao Paulo

Paulo Celso Vieira Paino

University of Sao Paulo

Hadar Ben-Gida

Technion

Marcello Augusto Faraco Medeiros

University of Sao Paulo

17:40-18:00

ThL2T2.6

**Stability analysis of shear flows and boundary layers  
via novel stability criterion that utilizes the small gain theorem**

Ofek Frank-Shapir

Technion

Igal Gluzman

Technion







ThL2T3

Hall C

## Aerospace Systems and MDO

Chair: Yuval Freed

Israel Aerospace Industries

Co-Chair: Anna Clarke

Technion

16:00-16:20

ThL2T3.1

### Genetic algorithm-based approach to load distribution in full-scale structural test design

Boris Dorfman

Israel Aerospace Industries

Efrat Pinhas

Israel Aerospace Industries

Yuval Freed

Israel Aerospace Industries

16:20-16:40

ThL2T3.2

### Machine learning-based surrogate models for predicting crack growth in aerospace-grade aluminum alloys

Yuval Freed

Israel Aerospace Industries

16:40-17:00

ThL2T3.3

### Leveraging foundation model approach in fluids mechanics systems engineering

Shaul Eliahou Niv

Israel Aerospace Industries

Yotam Gardosh

HUJI

Asaf Shiloah

HUJI

17:00-17:20

ThL2T3.4

### Inner Outer Predictive Model Applied to Atmospheric Surface Layer Turbulence

Maayan Shimoni

Technion

Ian Jacobi

Technion

Anna Clarke

Technion

17:20-17:40

ThL2T3.5

### Flight Course Maneuver Optimization for a Fighter Jet in a Threatened Area

Ido Braun

Technion

Joseph Z. Ben-Asher

Technion



ThL2T4

Hall D

## AI and Autonomy

Chair: Itzik Klein

University of Haifa

Co-Chair: Vadim Indelman

Technion

16:00-16:20

ThL2T4.1

Hybrid belief space planning with coupled semantic-geometric models

Tuvy Lemberg

Technion

Vadim Indelman

Technion

16:20-16:40

ThL2T4.2

Real-time sky object detection and classification using YOLO algorithm

Cristian Omat

Astronomical Institute of the Romanian Academy

16:40-17:00

ThL2T4.3

Detecting GPS spoofing incidents using variational autoencoders

Barak Or

Technion

17:00-17:20

ThL2T4.4

Enhancing predictive maintenance with transformer-based deep neural network

Barak Or

Technion

17:20-17:40

ThL2T4.5

Remotely piloted aircrafts automatic takeoff and landing performance evaluation

Tsoof Joels

Elbit Systems

17:40-18:00

ThL2T4.6

Neural inertial dead reckoning and fusion

Itzik Klein

University of Haifa



## Aerodynamics, Hydrodynamics and Aeroacoustics

Chair: Yuval Dagan

Technion

Co-Chair: Omry Magen

Tel Aviv University

16:00-16:20

ThL2T5.1

### Clustering of particle-laden flows in synthetic turbulence

Boaz Ofarim

Technion

Orr Avni

Technion

Yuval Dagan

Technion

16:20-16:40

ThL2T5.2

### On the noise modulation of small-scale low-reynolds number rotors of different materials

Aharon Karon

Israel Aerospace Industries

Aleksandra Kvurt

Israel Aerospace Industries

Jenya Kazarin

Technion

Hadar Ben-Gida

Technion

16:40-17:00

ThL2T5.3

### Utilization of computer vision algorithms for the characterization of coupled interactions between bubbly shocks and cavitation cloud

Elad Zur

Technion

Igal Gluzman

Technion

17:00-17:20

ThL2T5.4

### Modelling steady features of cavitation in radial flow between two overlying disks with varying gaps

Samruddhi Salunke

Technion

Igal Gluzman

Technion





17:20-17:40

ThL2T5.5

Rapid depressurization-induced flash boiling: a theoretical model  
for positive and negative pressure ranges

Omry Magen  
Yoram Kozak  
Laura DiLucchio  
Marco Marengo  
Tali Bar-Kohany

Tel Aviv University  
Tel Aviv University  
University of Pavia  
University of Pavia  
Tel Aviv University

17:40-18:00

ThL2T5.6

Eulerian sectional approach for particle erosion in compressible flows

Amir Loyevsky  
Ido Immer  
Yuval Dagan

Rafael  
Rafael  
Technion



ThL2T6

Hall F

## Astrodynamics and Space Systems II

Chair: Vitaly Shaferman  
Co-Chair: Moshe Golani

Technion  
Technion

16:00-16:20

ThL2T6.1

### Trajectory design and control for missed-thrust rendezvous

Meir Nemirovsky  
Pini Gurfil

Technion  
Technion

16:20-16:40

ThL2T6.2

### An optimal low-thrust spacecraft interception guidance law with terminal velocity constraints

Yahli Drucker  
Vitaly Shaferman

Technion  
Technion

16:40-17:00

ThL2T6.3

### Deep space navigation using satellite-based radio interferometry

Moshe Golani

Technion

17:00-17:20

ThL2T6.4

### A space propulsion system without mass ejection

Azriel Lorber

17:20-17:40

ThL2T6.5

### An optimal soft landing guidance law with an approach angle path constraint

Revital Frenkel  
Vitaly Shaferman

Technion  
Technion

17:40-18:00

ThL2T6.6

### Exploring low-cost trajectories to the sun-earth Lagrange point

Geffen Aharoni  
Tamar Alperin  
Naama Gilat  
Iris Kanter  
Almog Yanku  
Alex Frid

Technion  
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Technion  
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ThL2T7

Hall G

## Solid Mechanics and Aerospace Materials

Chair: Ameer Marzok  
Co-Chair: Pavel Galich

Technion  
Technion

16:00-16:20

ThL2T7.1

### Effect of magnetic field on P- and S-waves in magneto-active polymers

Ankush Yadav  
Pavel Galich

Technion  
Technion

16:20-16:40

ThL2T7.2

### An investigation into semi-stabilized unsymmetrical thin-walled structure

Steve Katzeff

Israel Aerospace Industries

16:40-17:00

ThL2T7.3

### Progressive damage and failure analysis for structural continuous fiber composites

Daniel Vilyatser  
Tim Artz  
Eric Stamper

Ansys  
Ansys  
Ansys

17:00-17:20

ThL2T7.4

### Multifunction automated unit cell, review

Shay Shoam  
Uri Ben-Simon  
Yuval Freed  
Zvi Karuchero  
Alexander Lukatsky  
Adam Sawday  
Eduardo Eigenberg  
Hilla Elimelech

Israel Aerospace Industries  
Israel Aerospace Industries  
Israel Aerospace Industries  
IAI  
Israel Aerospace Industries  
IAI  
Israel Aerospace Industries  
DDR&D

17:20-17:40

ThL2T7.5

### Optimal design of thin-walled beams with buckling considerations

Ameer Marzok

Technion





## Session Halls at the Faculty of Aerospace Engineering

