# 76th SAWE International Conference on Mass Properties Engineering 2017

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## **Technical Tracks**

### Monday, May 22, 2017 9:30 a.m. - 12:00 p.m.



Werner Sellner

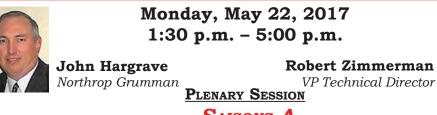
**Robert Zimmerman** VP Technical Director



Sellner Aerostructures Systems Design Technical Tracks

#### SAISONS A

| Time          | Presentation   |
|---------------|--|
| 9:30 - 10:00  | 3693 A Random Method for Picking Module Stowage Solutions for<br>Barges - Robert Hundl - Fluor1  |
| 10:00 - 10:15 | Vendor Presentation  |
| 10:15 - 10:45 | Technical Presentation - Lesson Learned of Statistical Mass<br>Estimation of Fighter and Trainer Aircraft - Werner Sellner -<br>Sellner Aerostructures N/A |
| 10:45 - 11:15 | Technical Presentation - Hybrid Aircraft, A Different Look at<br>Transportation - Kevin Tharp - Lockheed Martin N/A  |
| 11:15 - 11:30 | Vendor Presentation  |
| 11:30 - 12:00 | 3692 Aircraft Systems Physics-Based Weight Estimation Methods<br>for Conceptual Design - Ali Tfaily - Bombardier Aerospace16                               |





#### SAISONS A

| Time        | Presentation  |
|-------------|---|
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| 2:00 - 2:30 | Two Vendor Presentations  |
| 2:30 - 3:00 | 3676 Weight Control: Idealistic vs Realism<br>- R. Alan Bird - Fincantieri Marinette Marine36                                     |
| 3:00 - 3:30 | Coffee Break  |
| 3:30 - 4:00 | 3683 Capability Assessment of a MPE Organization<br>- Andreas Schuster - Meta MPE LLC49   |
| 4:00 - 4:30 | 3675 Weight Management During Engineering Development -<br>2016 SAWE Survey Results - Douglas Fisher - UTC<br>Aerospace Systems58 |
| 4:30 - 5:00 | Technical Presentation - The Mass Properties Discipline - Risk and<br>Opportunity - William Boze - SAWE President Elect N/A       |

#### **Technical Tracks**



Jeffrey Cerro NASA Langley Research Center

Wednesday, May 24, 2017 8:00 a.m. – 9:30 a.m. <u>SAISONS A</u> <u>TECHNICAL FORUM</u>

Model Based and Collaborative Aspects in Engineering and How Mass Properties Engineers Integrate into this Environment

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#### Wednesday, May 24, 2017 10:00 a.m. – 12:00 p.m.

### SAISONS A

ACADEMIC PAPERS



**William Boze** Huntington Ingalls Industries **Dr. Donna Garren** SAWE Academic Chair

| Time          | Presentation   |
|---------------|--|
| 9:30 - 10:00  | Coffee Break   |
| 10:00 - 10:30 | S3685 Design of an Internal Aerodynamic Load Cell for Static or<br>Oscillating Airfoils - Kamal Benmiloud & Hachmi Fellouah -<br>Université de Sherbrooke86                          |
| 10:30 - 11:00 | S3679 Design and Optimization of an Aluminum Structure<br>Assembled Using Elastic Fastening - Clement Laverne,<br>Alain Desrochers, & Ahmed Maslouhi - Université de<br>Sherbrooke93 |
| 11:00 - 11:30 | S3691 Methods to Evaluate the Mass Properties of a Scale Model<br>Aircraft - Eetu Kohtanen & R. Benjamin Davis - University<br>of Georgia120   |
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## Wednesday, May 24, 2017 1:30 p.m. – 5:15 p.m.



#### SAISONS A REAL WORLD MASS PROPERTIES SESSION

Amanda Cutright

Stein Bjorhovde

BAS Engineering

NASA Langley Research Center

**Ricardo Roy** United Launch Alliance Retired

**Technical Tracks** 

| Time        | Presentation   |
|-------------|--|
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| 2:00 - 2:30 | Two Vendor Presentations   |
| 2:30 - 3:00 | 3688 Uncertainty Analysis Applied to Two Historic Inclining<br>Experiments - David Hansch - Huntington Ingalls<br>Industries174                      |
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| 3:30 - 4:00 | Technical Presentation - High Performance Engineering<br>Thermoplastics - Victor Hilyard - Ensinger N/A  |
| 4:00 - 4:15 | Vendor Presentation  |
| 4:15 - 4:45 | 3690 Optimization of Environmental Control System for Corporate<br>Jets - Ragaa Mitry - Gulfstream Aerospace221                                      |
| 4:45 - 5:15 | Technical Presentation - Optimization-Driven Design for<br>Lightweight Structures - Tony Norton, Executive VP, Americas<br>Altair Product Design N/A |

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### Wednesday, May 24, 2017 9:30 a.m. – 12:00 p.m.



SAISONS B MARINE SYSTEMS SESSION



**Robert Zimmerman** VP Technical Director

| Time          | Presentation   |
|---------------|--|
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| 10:30 - 11:00 | 3678 Submarine Static Stability<br>- David Tellet - Retired263   |
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#### **Technical Tracks**



### Wednesday, May 24, 2017 1:30 p.m. – 5:30 p.m.

Stein Bjorhovde BAS Engineering

**Jeffrey Cerro** 

NASA Langley Research Center

**OFFSHORE SESSION** 

SAISONS B

| Time        | Presentation  |
|-------------|---|
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| 2:30 - 3:00 | 3682 Allowance vs. Contingency in the Offshore Oil Industry -<br>David Bennett - Worley Parsons465  |
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| 3:45 - 4:15 | 3684 Appurtenance Buoyancy - Mass Properties Management of<br>Offshore Systems  478<br>Andreas Schuster - Meta MPE LLC                        |
| 4:15 - 4:45 | Two Vendor Presentations  |
| 4:45 - 5:15 | Technical Presentation - Weight Management of Large Offshore Oil<br>Projects - David Bennett - Worley Parsons N/A                             |

## **Additional Paper**

Jeffrey A. Cerro