



## SIMULIA Regional User Meeting — EuroNorth

September 14-15, 2022 | The Midland Hotel, Manchester, UK

## Day One

| 8:00 AM  | Registration open   |  |  |  |  |
|----------|---|--|--|--|--|
| 9:00 AM  | Welcome Remarks   |  |  |  |  |
| 9:15 AM  | Simulation Brand Updates & Highlights   |  | Mark Bohm, SIMULIA Senior Director,   Dassault Systèmes  |  |  |
| 9:45 AM  | Keynote 1: Failure of all solid-state Li-ion batteries  |  | Vikram Deshpande, Professor of Materials Engineering  <br>Cambridge University   |  |  |
| 10:15 AM | Batteries and electric drives:<br>Multiphysics-multiscale-driven design   |  | Joe Amodeo, SIMULIA Industry Process Director & Victor<br>Oancea, SIMULIA R&D Technology Director   Dassault<br>Systèmes |  |  |
| 11:00 AM | Break & Exhibition  |  |  |  |  |
| 11:30 AM | Keynote 2: EM Simulation and the Connected Car  |  | Emma Kowalczuk, Electromagnetics Chapter Lead   Jaguar<br>Land Rover   |  |  |
| 12:00 PM | Guest speaker: Smarter Testing - Data<br>Driven Platform  |  | Neil Loftus, <b>Airbus</b> & Tony Goff   <b>Dassault Systèmes</b>  |  |  |
| 12:30 PM | Lunch including: Gold Sponsor Presentation from new SIMULIA VAR, SIMUSERV UK - Non Parametric Shape Optimisation of Electromagnetic Components using SIMULIA CST Studio Suite and TOSCA   |  |  |  |  |
| 1:30 PM  | <b>3D</b> EXPERIENCE Cloud Simulation   | Adriano Gagliardi, SIMULIA Strategy, Roles Portfolio Engineering Senior<br>Manager   Dassault Systèmes |  |  |  |
| 2:00 PM  | Technology Session 1:<br>Structures   | Technology Ses<br>Electromagnetic  |  | Technology Session 3: Fluids and Computational AeroAcoustics | Technology<br>Session 4: Vibro-<br>acoustics |
| 4:00 PM  | Break & Exhibition  |  |  |  |  |
| 4:30 PM  | Round Tables - Conference delegates will have the opportunity to attend 3 round tables; each round table session will last for 20 minutes. Choose from:  • Workforce of the Future  • The Future is Electric  • The Future is Connected  • The Future is Sustainable  • The Future is the Cloud  • The Future is Simulation-driven driven Design  • Strategy & Future |  |  |  |  |
| 5:30 PM  | Day One Ends  |  |  |  |  |
| 6:30 PM  | Drinks Reception, followed by Banquet with the after-dinner game!   |  |  |  |  |

## Day Two

| 8:45 AM   | Welcome remarks                                    |  |  |  |  |
|---|--|--|--|--|--|
|   | Keynote 3  |  |  |  |  |
|   |  |  |  |  |  |
|   | User Papers Session 1                              | User Paper Session 2   |  |  |  |
|   | r Experimentally measured impedance                | 1. Computational Wear Analysis of Different Activities of        |  |  |  |
| _   |  | Daily Living for Reverse Shoulder Replacement, Jessa Mae         |  |  |  |
|   | agnetic wires, Dmitriy Makhnovskiy                 | Canas   Liverpool John Moores University                         |  |  |  |
| Plymouth University  2. EMC Specialist How to simplify power converter RF |  | 2. A Finite Element Study of the Effect of Cross-link            |  |  |  |
| -   | mission models, Jason Watkiss   <b>Rolls Royce</b> | Stabilisation in A Lumbar Spine Tumour Model, Damien             |  |  |  |
| Control System  | · · · · · · · · · · · · · · · · · · ·              | Lacroix   University Of Sheffield                                |  |  |  |
|   | ng Engineering through Democratisation of          | 3. A parametric model of the human knee optimised for            |  |  |  |
|   | t Jaguar Land Rover, Michael Brown   <b>Jaguar</b> | contact Mechanics Laurence Marks   Oxford Brookes                |  |  |  |
| Land Rover L  | , -  | University   |  |  |  |
| 4. Combining  | measurement and simulation using a                 | 4. Establishing Model Credibility through VVUQ – the Key         |  |  |  |
| _   | l, Kilwa Ärölä   <b>Rand Finland</b>               | Element for in-silico Medicine, Nils Götzen   <b>4REALSIM BV</b> |  |  |  |
| 10:50 AM  | Break  |  |  |  |  |
| 11:15 AM  | User Paper Session 3                               | User Paper Session 4   |  |  |  |
|   | nally graded fractional poroelastic model of       | Conservatisms in equivalent static assessment of Dynamic         |  |  |  |
|   | neniscus explains lubrication mechanisms           | Events, John Sawyer   <b>Atkins</b>                              |  |  |  |
|   | ng, Olga BARRERA   <b>Oxford Brookes</b>           |  |  |  |  |
| University  | ,  |  |  |  |  |
|   | ubular core structure inside helmet to             | 2. Aircraft community noise prediction in 3D environments,       |  |  |  |
| _   |  | Yunusi Fuerkaiti   <b>Technische Universiteit Delft</b>          |  |  |  |
| -   | performance, Filippi Romain, Quentin Jorry         | '  |  |  |  |
| _   | LISATION & Mathilde Nais   Koroyd                  |  |  |  |  |
| 3. Brake Syst   | em Limit Performance Prediction using CFD          | 3. Finite-element model of fire-protected composite beams        |  |  |  |
|   |  | with web openings, Nicoletta Galluzzi   <b>WSP UK Limited</b>    |  |  |  |
|   | ey Continental GT Speed, Stamatis Angelinas        |  |  |  |  |
| Bentley   |  |  |  |  |  |
| _   |  | 4. Finite element modeling of interlaminar fracture of thin      |  |  |  |
| _   | wdriver, Bob Johnson   <b>Realistic</b>            | carbon fiber/polyamide6 laminates with stiffening beams,         |  |  |  |
|   | Analysis Limited                                   | Sepehr Simaafrookhteh   <b>KU LEUVEN</b>                         |  |  |  |
| 12:35 PM  | Lunch  |  |  |  |  |
| 1:30 PM   | User Papers Session 5                              | User Paper Session 6   |  |  |  |
|   | I Simulation for the Compressive Behaviour         | 1. A thermo-mechanical model of prestressed concrete             |  |  |  |
|   | ibre Prepreg under High-pressure                   | hollow core slabs under fire, Waleed Hamad   WSP UK Limited      |  |  |  |
| University (  | n Moulding Conditions, Hao Yuan  <br>Of Warwick    | Limited  |  |  |  |
|   | ment model of Specially-shaped partially           | 2. X-ray Computed Tomography and Finite Element                  |  |  |  |
|   | mposite columns under cyclic loading,              | Analysis of the Great White Pelican Beak for Lightweight         |  |  |  |
|   | Iniversity Of Lancaster                            | Vehicle Part Design, Nicola Thomas   Swansea University          |  |  |  |
| J 3-7-9   5   |  | 5 , , ,  |  |  |  |
| 3. Micromechanics of yarn-level hybrid composites,                        |  | 3. Fatigue life prediction of antivibration products using       |  |  |  |
| Giuseppe Romano   The University Of Manchester                            |  | Abaqus user subroutine, Robert Luo   <b>Trelleborg AVS</b>       |  |  |  |
| 4. Aeroacoustics Simulation using SIMULIA                                 |  | 4. Strategies for Automation of High Variability and Low         |  |  |  |
| PowerFLOW across Dyson Technology Ltd, Dr                                 |  | Repetition Analyses, Matt Clarke   TECHNIA                       |  |  |  |
|   | anjere CEng MIMechE   Dyson Technology             |  |  |  |  |
| Ltd   |  |  |  |  |  |
| 2:50 PM   | Upcoming and Future Directions from                | Chris Whiting - SIMULIA R&D Senior Director of Structural        |  |  |  |
|   | SIMULIA R&D  | Simulation & Victor Oancea, SIMULIA R&D Technology               |  |  |  |
|   |  | Director   |  |  |  |
| 3:20 PM   | Conference Closing Remarks                         |  |  |  |  |