Welcome to the 2016 OMNeT++ Community Summit

September 15-16

Brno University of Technology – Czech Republic
About the Summit

- **Main objectives**
  - Facilitate interaction and sharing of experiences, models, and results among the OMNeT++ user and developer community
  - Facilitate interaction between OMNeT++ user community and the development team

- Third edition of the summit (following Hamburg 2014 and Zurich 2015)

- Six prior editions of the Int’l OMNeT++ Workshop (in conjunction with SIMUtools)

- Second two-day event!

- Densely-packed program including invited talks, panel, tutorials, regular presentations, demonstrations, Q&A sessions and hopefully a lot of interaction!

- First “Best Contribution Award” (details afterwards)
Summit Organizers (1)

- **Founding Chair**
  - András Varga (Simulcraft Inc.)

- **Community Summit Organizers**
  - Anna Förster (University of Bremen, Germany)
  - Vladimír Veselý (Brno University of Technology, Czech Republic)

- **Technical Program Organizers**
  - Antonio Virdis (University of Pisa, Italy)
  - Michael Kirsche (BTU Cottbus–Senftenberg, Germany)

- **Publicity Organizer**
  - Kyeong Soo (Joseph) Kim (Xi'an Jiaotong–Liverpool University, China)
  - Laura Marie Feeney (Uppsala University, Sweden)
Summit Organizers (2)

- Technical Program Committee
  - Michael Frey (HU Berlin, Germany)
  - Yutaka Matsubara (Nagoya University, Japan)
  - Cyriel Minkenberg (Rockley Photonics Inc., USA)
  - Georg Panholzer (Salzburg Research, Austria)
  - Alfonso Ariza Quintana (University of Malaga, Spain)
  - Gabrielle Romaniello (Schneider Electric, France)
  - Christoph Sommer (University of Paderborn, Germany)
  - Dora Spenza (Sapienza University of Rome, Italy)
  - Mirko Stoffers (RWTH Aachen University, Germany)
  - Carlo Vallati (University of Pisa, Italy)
Local Logistics

- Event takes place in Building C → Lecture Hall E105.

- Registration, coffee breaks and lunch will be held/served in the hall in front of E105

- Dinner: details on next slide

- WiFi access:
  - SSID: VUTBR
  - Username: omnetpp
  - Password: starobrno
Community Dinner

- Restaurant PIVOVARSKÁ STAROBRNO
- Mendlovo náměstí 20, Brno (Located next to the Starobrno brewery)
- Buffet including vegetarian options
- Self-paid
Contribution Statistics

- 14 submissions from 8 countries
  - 12 research submissions, from university
  - 1 Tutorial
  - 1 Panel
Review Process

- TPC with 10 members + organizers reviewed submissions to evaluate:
  - Novelty
  - Community value / interest
  - Technical content

- At least three reviews per submission
  - Valuable feedback for the authors for future publications
  - Conflicts and improvement possibilities addressed by reviewers
  - Presentation type advised
  - Shepherding
Best Contribution Selection

- Committee of selected attendees reviews each presentation (except invited ones)
  → Committee members do not partake in the competition

- Committee awards points to each presentation

- TPC reviewer scores of submissions are included in the selection / voting

- Best contribution is announced during the Summit Closure Note
Program (1)

- TPC selected:
  - 1 tutorials
  - 3 long presentations
  - 4 short presentations
  - 4 short presentations with demonstrations
  - 1 panel

- Proceedings are available at the [Summit website](#)
  1. Single PDF with all contributions collected
  2. Individual contributions linked [in the program](#)

- All *presented* contributions are published and indexed on [arXiv.org](#)
Program (2)

- Discussion Panel on *Large-scale Simulation and Data Analysis*
  - Thanks to Antonio Virdis

- Invited presentations and tutorials:
  - By OMNeT++ / OMNEST developers
    (thanks to András Varga, Rudolf Hornig, Levente Mészáros and Attila Török)
  - On novel research projects / frameworks
    (thanks to Vladimír Veselý and Marcel Marek)
Program (3)

- **NOTE:** We have a very full program:
  
  PLEASE STICK TO YOUR ALLOCATED TIME SLOTS

- Leave time for questions (recall the “interaction” objective)

- For presenters:
  - Session chairs are indicated on the program:
    
    Please contact them in the break before your session

  - If possible, upload your presentation to the presentation laptop

  - Otherwise, please TEST your setup in the coffee break beforehand!
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<tr>
<th>Session</th>
<th>Time</th>
<th>Speaker / Title</th>
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<tr>
<td>Opening</td>
<td>08:30 – 09:00</td>
<td>Registration</td>
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<td>09:00 – 09:15</td>
<td><strong>Welcome Note</strong>: Antonio Virdis, Michael Kirsche</td>
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<tr>
<td>Session: INET and OMNeT++ Developments Part 1</td>
<td>09:15 – 09:40</td>
<td>Felix Weinrank, Irene Rüngeler, Michael Tüxen and Erwin Rathgeb</td>
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<td>SCTP User Message Interleaving - Integration and Validation</td>
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<td></td>
<td>09:40 – 10:00</td>
<td>Atheer Al-Rubaye, Ariel Aguirre and Jochen Seitz</td>
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<td>Enabling Soft Vertical Handover for MIPv6 in OMNeT++</td>
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<td></td>
<td>10:00 – 10:25</td>
<td>Marco Tiloca, Alexandra Stagkopoulos and Gianluca Dini</td>
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<td>Performance and Security Evaluation of SDN Networks in OMNeT++/INET</td>
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<td>10:25 – 11:00</td>
<td>Laura Marie Feeney</td>
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<td>Towards a Better Battery Model for INET</td>
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<td>Coffee Break</td>
<td>11:00 – 11:30</td>
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<tr>
<td>Panel: Simulation and Data Analysis</td>
<td>11:30 – 12:15</td>
<td>Antonio Virdis, Carlo Vallati and Giovanni Nardini</td>
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<td>Automating Large-Scale Simulation and Data Analysis with OMNeT++: Lessons Learned and Future Perspectives</td>
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<td>Lunch Break</td>
<td>12:15 – 13:15</td>
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<td><strong>Session: INET and OMNeT++ Developments Part 2</strong></td>
<td>13:15 – 13:40</td>
<td>Syphax Iskounen, Thi Mai Trang Nguyen and Sebastien Monnet WiFi-Direct Simulation for INET in OMNeT++</td>
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<tr>
<td><strong>Session Chair:</strong> Michael Kirsche</td>
<td>13:40 – 14:05</td>
<td>Invited Speaker: András Varga Plans for OMNeT++ 5.1</td>
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<td>14:05 – 14:30</td>
<td>Invited Speaker: Rudolf Hornig SQLite as a Result File Format for OMNeT++</td>
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<td><strong>Coffee Break</strong></td>
<td>15:15 – 15:45</td>
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## Session: OMNeT++ Extensions

**Session Chair:** Vladimir Vesely

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<tr>
<th>Time</th>
<th>Speaker / Title</th>
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| 15:45 – 16:10 | Till Steinbach, Philipp Meyer, Stefan Buschmann and Franz Korf  
Extending OMNeT++ Towards a Platform for the Design of Future In-Vehicle Network Architectures |
| 16:10 – 16:35 | Wolfgang Wallner  
Simulation of the IEEE 1588 Precision Time Protocol in OMNeT++ |
| 16:35 – 16:55 | Kyeong Soo Kim  
Stacked-VLAN-Based Modeling of Hybrid ISP Traffic Control Schemes and Service Plans Exploiting Excess Bandwidth in Shared Access Networks |
| 16:55 – 17:15 | Pavlos Maniotis, Nikos Terzenidis and Nikos Pleros  
The OptoHPC-sim simulator: Bringing OptoBoards to HPC-scale environments |

### Coffee Break

| Time          | 17:15 - 17:30 |

### Invited Session: Animation in OMNeT++ 5

| Time          | Invited Speakers: Levente Mészáros, András Varga and Attila Török  
Enhancing Visualization and Animation in Simulation Models |
|---------------|------------------------------------------------------------------|
| 17:30 – 18:30 | Invited Speakers: Levente Mészáros, András Varga and Attila Török  
Enhancing Visualization and Animation in Simulation Models |

### Community Dinner

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<tr>
<th>Time</th>
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<tr>
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<td>Meeting to walk together at 18:45</td>
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<td>Session</td>
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| Session: Routing and Mobility| 09:00 – 09:25 | Benjamin Sliwa, Christoph Ide and Christian Wietfeld  
An OMNeT++ based Framework for Mobility-aware Routing in Mobile Robotic Networks |
|                              | 09:25 – 09:50 | Asanga Udugama, Behruz Khalilov, Anas Bin Muslim, Anna Förster and Koojana Kuladinithi  
Implementation of the SWIM Mobility Model in OMNeT++                                            |
|                              | 09:50 – 10:15 | Vladimír Veselý, Vít Rek and Ondřej Ryšavý  
Babel Routing Protocol for OMNeT++: More than just a new Simulation Module for INET               |
| Coffee Break                 | 10:15 – 10:45 |                                                                                                       |
| Invited Session: Framework and Research Project Introduction | 10:45 – 11:00 | Invited Speaker: Vladimír Veselý  
Introducing OMNeT++-based Research Frameworks: ANSAINET                                              |
|                              | 11:00 – 11:15 | Invited Speaker: Marcel Marek  
Introducing OMNeT++-based Research Frameworks: RINASim                                                   |
| Invited Session: Future Directions for INET | 11:15 – 11:35 | Invited Speaker: Rudolf Hornig  
An Update on the INET 3.x Developments                                                              |
|                              | 11:35 – 12:20 | Invited Speaker: Levente Mészáros  
An Update on the new INET IEEE 802.11 MAC Model                                                          |
| Closing Session              | 12:20 – 12:30 | Summit Closure Note + “Best Contribution Award”                                                        |
Best wishes from the organizers for an interesting and successful OMNeT++ Community Summit 2016