CBSE’15
Proceedings of the 18th International ACM SIGSOFT Symposium on Component-Based Software Engineering

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Welcome from the CompArch 2015 Chair

It is our great pleasure to welcome you to the 2015 Federated Events on Component-Based Software Engineering and Software Architecture (CompArch 2015), held in Montréal, Canada on May 4 to 7, 2015.

This year CompArch is co-located with the 12th Working IEEE/IFIP Conference on Software Architecture – WICSA 2015. CompArch and WICSA jointly feature keynote speeches, tutorials, four workshops addressing a broad spectrum of topics of great interest in the field, and a dedicated Industry Day with a rich program especially conceived to attract practitioners, and create new links and collaboration opportunities for academia and industry. The joint conference also features a doctoral symposium (WCOP), a poster exhibition and tool demos.

The call for papers attracted submissions from Asia, Canada, Australia, Europe, Africa, and the United States. The program committees reviewed and accepted the following:

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<th>Track</th>
<th>Reviewed</th>
<th>Accepted</th>
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<tr>
<td>Component-based Software Engineering (CBSE)</td>
<td>42</td>
<td>14</td>
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<tr>
<td>Quality of Software Architecture (QoSA)</td>
<td>28</td>
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We also encourage attendees to attend the keynote and invited talk presentations. These valuable and insightful talks can and will guide us to a better understanding of the future:

- **Keynote Talk** by Jan Bosch (who is currently professor at Chalmers University, Sweden)
- **Keynote Talk** by Steve Mellor (who is currently at Industrial Internet)

Putting together *CompArch 2015* was a team effort. We first thank the authors for providing the content of the program. We are grateful to the program committees of the many events and their respective chairs, who worked very hard in reviewing papers and providing feedback for authors. Finally, we thank the hosting engineering school: the *École de Technologie Supérieure* (part of the Université du Québec à Montréal), and our key sponsor: *ACM SigSoft*.

We hope that you will find this program interesting and thought-provoking and that the symposium will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world. And enjoy your stay in the Belle Province!

**Philippe Kruchten**  
*CompArch’15 General Chair*  
*UBC, Vancouver, Canada*

**Roger Champagne**  
*CompArch’15 Local host*  
*ETS, Montréal, Canada*
CBSE 2015 Chairs’ Welcome

It is our great pleasure to welcome you to the 18th International ACM Sigsoft Symposium on Component-Based Software Engineering – CBSE’15. This year’s symposium continues its tradition of being the premier forum for presentation of research results and experience reports in component technology. The general theme for CBSE’15 is “Components for physical services”, motivated by the fact that software systems increasingly control processes that reside outside traditional computing environments.

The call for papers attracted 42 submissions from around the globe: America (Brazil, Canada, Jamaica, USA), Asia (India, Pakistan), Europe (Austria, Belgium, Czech Republic, Denmark, Germany, France, Italy, Luxembourg, Portugal, Spain, Sweden, Switzerland, United Kingdom), and Oceania (Australia, New Zealand), highlighting the international appeal of the event. The papers in these proceedings are included based on a formal peer-reviewing process on full papers. Each submission was reviewed by at least three independent members of the Program Committee. After an extensive discussion, the Program Committee decided to accept 14 papers (9 regular papers and 5 short papers). It is very pleasing to see that the accepted papers cover a variety of topics, including Component Composition and Reuse, Adaptable Components, Components for Wireless and Real-time systems, Component Analysis and Design, and Components in Model-based Engineering. To a certain degree, this reflects on the progress component technologies have made over the past years. We hope that the CBSE’15 proceedings will serve as a reference for academic researchers and practitioners working in the area of Component-Based Software Engineering.

Putting together CBSE’15 was a team effort. We first thank the authors for providing the content of the program – without their valuable contributions we would not have been able to put in place an exciting program. We are very grateful to all the members of the Program Committee who worked very hard in reviewing papers and providing feedback for authors. We also thank the members of the local Organizing Committee as well as the committee members of the co-located events (QoSA, WCOP, as well as WICSA) for making this event possible. Finally, we thank the hosting organization École de Technologie Supérieure, ACM and IEEE, as well as all the other sponsors of CompArch 2015 for their support.

We hope that you will find this program interesting and thought-provoking and that the symposium will provide you with a valuable opportunity to share ideas with researchers and practitioners alike from institutions around the globe.

Steffen Becker  
CBSE’15 Program Co-Chair  
Technical University Chemnitz,  
Germany

Jean-Guy Schneider  
CBSE’15 Program Co-Chair  
Swinburne University of  
Technology, Australia
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