## **PATTERNS 2012**

# **Foreword**

The Fourth International Conferences on Pervasive Patterns and Applications (PATTERNS 2012), held between July 22 and 27, 2012 in Nice, France, targeted the application of advanced patterns, at-large. In addition, to support for patterns and pattern processing, special categories of patterns covering ubiquity, software, security, communications, discovery and decision were considered. As a special target, the domain-oriented patterns covered a variety of areas, from investing, dietary, forecast, to forensic and emotions. It is believed that patterns play an important role on cognition, automation, and service computation and orchestration areas. Antipatterns come as a normal output as needed lessons learned.

PATTERNS 2012 was aimed at technical papers presenting research and practical results, industrial small- and large-scale systems, challenging applications, position papers addressing the pros and cons of specific topics, such as those being discussed in the standard fora or in industry consortia, survey papers addressing the key problems and solutions on any of the topics, short papers on work in progress, and panel proposals.

We take here the opportunity to warmly thank all the members of the PATTERNS 2012 Technical Program Committee, as well as the numerous reviewers. The creation of such a broad and high quality conference program would not have been possible without their involvement. We also kindly thank all the authors who dedicated much of their time and efforts to contribute to PATTERNS 2012. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

Also, this event could not have been a reality without the support of many individuals, organizations, and sponsors. We are grateful to the members of the PATTERNS 2012 organizing committee for their help in handling the logistics and for their work to make this professional meeting a success.

We hope that PATTERNS 2012 was a successful international forum for the exchange of ideas and results between academia and industry and for the promotion of progress in the area of pervasive patterns and applications.

We are convinced that the participants found the event useful and communications very open. We hope Côte d'Azur provided a pleasant environment during the conference and everyone saved some time for exploring the Mediterranean Coast.

#### **PATTERNS 2012 Chairs:**

### **PATTERNS Advisory Chairs**

Herwig Manaert, University of Antwerp, Belgium Fritz Laux, Reutlingen University, Germany Michal Zemlicka, Charles University - Prague, Czech Republic Alfred Zimmermann, Reutlingen University, Germany

### **PATTERNS 2012 Research/Industry Chairs**

Teemu Kanstren, VTT, Finland

Guenter Neumann, DFKI (Deutsches Forschungszentrum fuer Kuenstliche Intelligenz GmbH), Germany

Markus Goldstein, DFKI (German Research Center for Artificial Intelligence GmbH), Germany Zhenzhen Ye, iBasis, Inc., Burlington, USA

Cornelia Graf, CURE - Center for Usability Research & Engineering, Austria René Reiners, Fraunhofer FIT - Sankt Augustin, Germany