

PETRA 2018

JUNE 26-29

CORFU, GREECE



News

- Keynotes are announced ([../keynote.html](#))
- Conference Notification Emails are sent out.
- Register Now ([../register.html](#))
- Book Hotel Room ([../hotel.html](#))
- DC Application and Poster Paper Deadline Extended
- Full/Short Paper deadline passed
- Workshops ([../cfw.html](#)) are announced
- Submission System (<https://easychair.org/conferences/?conf=petra2018>) Available!
- PETRA 2018 will be held in Corfu, Greece at the Corfu Holiday Palace Hotel from June 26-29, 2018
- Website launch on October 18!

Keynotes

Enable Enterprise Research at Scale with Cloud Technologies

**Franco Amalfi**

Director of Innovation
Oracle Public Sector North America

**Manuel Martin Marquez**

Research
CERN openlab

ABSTRACT: Oracle has been deeply involved with the research community for more than 25 years and continues to lead the industry. It also works to make sure it maintains focus on solving the real problems of customers that rely on Oracle technology. Recent innovations made in the deployment of high-performance computing infrastructure and advanced analytics solutions are focused on accelerating enterprise research at scale. Advancements in key technologies including security, big data, machine learning/AI, and IoT, coupled with the far more cost-effective and elastic cloud delivery model have radically changed what is possible in data-driven research. Attend this session to learn how CERN is using cloud technologies to further advance research and to learn how you can take advantage of these capabilities to enable enterprise research at scale in your organization.

Franco Amalfi is Director of Innovation for Oracle Public Sector North America. In this capacity, Franco leads a team of experts responsible for the go to market strategy for education & research, health & human services, revenue management and Smart Government. Franco and his team guide government officials at every level – U.S. Higher Education, U.S. federal, U.S. state & local, and in Canada – to effectively use modern cloud based solution and emerging technologies to help government organizations deliver on their mission. In addition to working with customers, Franco authors, publishes white papers and articles on leveraging technology to drive business value for governments. He is also a frequent speaker at government conferences. He is a graduate of McGill University in Montreal, Canada and has completed an Advanced Certificate for Executives in Management, Innovation, and Technology at MIT Sloan School of Management in Cambridge, USA .

Manuel Martin Marquez obtained his first M.Sc. degree in Computer Sciences in 2008 and a second M.Sc. in Soft-computing and Intelligence Information Systems in 2011 both at the University of Granada, Spain. He is a member of the "Soft Computing and Intelligent Information Systems" (SCI2S) research group and the "Distributed Computational Intelligence and Time Series" research lab (DICITS). In 2007 he joined the Beam department of the European Centre for Nuclear Research (CERN). At that time he was co-leading the data management/engineering activities for the CERN Control Configuration Database and the Front-End Software Architecture, both projects of critical importance for improving the operations of the Large Hadrons Collider (LHC) and the rest of the CERN's accelerators complex. Currently, Manuel is a CERN openlab Senior Research Fellow, in the CERN IT department. His main activities in this position focus on the development of new techniques and approaches for Big Data Analytics and the implementation of the CERN's Data Analytics as a Service infrastructure – DAaaS. This Infrastructure centralizes and standardizes the complex data analytics

requirements for the wide CERN research and engineering community. Manuel's current areas of interest are time series analysis and modelling, distributed/parallel computational intelligence, data mining, and learning theory.

Cognitive Learning Support using Augmented and Virtual Reality



Markus Funk

Technical University of Darmstadt, Germany

Markus Funk is a post-doctoral Human-Computer Interaction researcher and area head at the Technical University of Darmstadt, who is an expert in Augmented Reality and Virtual Reality. He holds a PhD in Human-Computer Interaction from the University of Stuttgart that he did under the supervision of Albrecht Schmidt. During his PhD, Markus spent a research semester at the Fluid Interfaces group at the MIT Media Lab in Cambridge, MA. Through conducting research at Yahoo!-Labs in Sunnyvale, CA, and Siemens Research in Berkeley, CA, Markus broadened his knowledge in using Human-Computer Interaction for solving real-world problems. Further, Markus is a regular reviewer for peer-reviewed conferences and journals and is a PC member of different academic conferences.

Minds in Motion: Assessing Embodied Cognition through a Collaboration of Neuroscience and Computational Research



Morris David Bell, PhD, ABPP

Professor Emeritus and Senior Research Scientist in Psychiatry, Yale University
VA RR&D Senior Research Career Scientist, VA Connecticut Healthcare System

ABSTRACT: Embodied Cognition (EC) has a great tradition in philosophy and psychology and has gained renewed interest as neuroscience has shown how the brain was built for motion. We now know that bodily action plays a key role in cognitive development, and that the mind is an embodied system of perception, sensation and movement in the world not just component neural networks in the brain. Neurocognitive assessments measure the intellectual growth of children,

and the decline of these capacities with age and disease, but these measures have remained locked in disembodied and localizationist-connectionist approaches to determine IQ, memory and executive functioning. The Activate Test of Embodied Cognition (ATEC) disrupts this traditional approach by combining specially created cognitive tasks with motion capture technology to measure cognitive processes in motion. ATEC is currently being tested with neurotypical and atypical children ages 5 to 9. Examples of embodied cognition tasks will be shown and the computational challenges of this motion capture system will be described. Future projects include creating an adult version for assessing post-concussion syndrome, TBI and Mild Cognitive Impairment.

Dr. Morris Bell is Professor Emeritus and Senior Research Scientist in the Department of Psychiatry at Yale University School of Medicine and Senior Research Career Scientist for the Dept. of Veterans Affairs Rehabilitation Research and Development Service. Trained as a clinical and neuropsychologist, Dr. Bell's career as clinician and researcher has been devoted to exploring interventions to restore cognitive and work function for people with severe and persistent mental disorders. His work spans four decades and has had wide national and international influence. Dr. Bell directs the VA/Yale Learning Based Recovery Center. He also directs the Veterans Integration to Academic Leadership (VITAL) program which reaches out to Veterans on college campuses, providing psycho-education and mental health services, liaison to other Veteran Healthcare Administration services, and consultation and education for faculty about Veteran students. In addition, he serves as Chair of the VA Connecticut Healthcare System IRB. The American Psychological Association has recognized Dr. Bell with a national award for Distinguished Contributions to Science in Public Service.

Contact us at petrae@uta.edu (<mailto:petrae@uta.edu?Subject=PETRA18%20Question>)

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