

# FAS\* 2017



MONDAY, SEPTEMBER 18, 2017

8:00 AM – 5:00 PM - REGISTRATION - Diamond Atrium

PLEASE CHECK IN TO PICK UP YOUR NAME BADGE AND FOR ON-SITE REGISTRATION

## 9:00 AM – 10:30 AM - CONCURRENT BREAKOUT SESSIONS

<b>North Ballroom</b>	Doctoral Symposium (Session I)	<b>Moderator:</b> Gregory Ditzler, The University of Arizona <b>Intro + Welcome</b> <b>Students:</b> Gilles Neyens Oliver Kosak Sam Hess Ashutosh Pandey
<b>Santa Rita</b>	Automation of Cloud Configuration and Operations (ACCO) Workshop (Session I)	<b>Keynote Speaker:</b> Abdella Battou, NIST 1) "Workflow Automation for Partially Hosted Cloud Services", Hanin Abubaker and Khaled Salah 2) "BDLaaS: Big Data Lab as a Service for Experimenting Big Data Solution", Yehia Taher, Rafiqul Haque and Mohand-Said Hacid
<b>South Ballroom</b>	The 5th International Workshop on Autonomic Management of high performance Grid and Cloud Computing (AMGCC'17) (Session I)	1) "Analysis of Service-oriented DBMS Organization", Woong Sul, H.Young Yeom and Hyungsoo Jung 2) "A Case Study of leveraging High-Throughput Distributed Message Queue System for Many-Task Computing on Hadoop", Cao Nguyen, Jik-Soo Kim, Jaehwan Lee and Soonwook Hwang 3) "Performance Optimization of Communication Subsystem in Scale-out Distributed Storage", Uiseok Song, Bodon Jeong, Sungyong Park and Kwonyong Lee
<b>Rincon</b>	2nd eCAS Workshop on Engineering Collective Adaptive Systems (eCAS 2017) (Session I, Engineering CAS)	1) "Model-driven Engineering of Decentralized Control in Cyber-Physical Systems", Mirko D'Angelo, Mauro Caporuscio, Annalisa Napolitano 2) "Towards a Foundational API for Resilient Distributed Systems Design", Matteo Francia, Danilo Pianini, Jacob Beal, Mirko Viroli
<b>Copper</b>	1st Workshop on Autonomic Management of Large Scale Container-based Systems (AMLCS) (Session I)	<b>Invited Talk:</b> Justin Cappos <b>Topic:</b> "Securing Docker's Supply Chain with TUF"

10:30 AM – 11:00 AM - COFFEE BREAK - Catalina and Tucson Rooms

**11:00 AM – 12:30 PM - CONCURRENT BREAKOUT SESSIONS**

<b>North Ballroom</b>	Doctoral Symposium (Session II)	<p><b>Moderator:</b> Gregory Ditzler, The University of Arizona</p> <p><b>Students:</b> Pratik Satam Sicong Shao Carla Sayan</p> <p><b>Keynote Speaker:</b> H.J. Siegel , Colorado State University <b>Title:</b> “What I Wish I Had Known about Technical Writing and Giving Presentations”</p>
<b>Santa Rita</b>	Automation of Cloud Configuration and Operations (ACCO) Workshop (Session II)	<p>3) “Autonomic Cross-Layer Management of Cloud Resources Framework”, Cihan Tunc, Farah Fargo, Youssif Al-Nashif and Salim Hariri</p> <p>4) “Autonomic Fault Detection Systems”, Ahmet Turan Özdemir, Cihan Tunc and Salim Hariri</p> <p>5) “Enabling Multi-level Data Fault Tolerance on Software-Defined Storage System”, Shuo-Han Chen, Chang Yung-Chun, Tseng-Yi Chen, Tsan-Sheng Hsu, Hsin-Wen Wei and Wei-Kuan Shih</p>
<b>Tubac</b>	The 5th International Workshop on Autonomic Management of high performance Grid and Cloud Computing (AMGCC'17) (Session II)	<p>4) “OMBM: Optimized memory bandwidth management for strict QoS and high server utilization”, Hanul Sung, Jeesoo Min, Sujin Ha and Hyeonsang Eom</p> <p>5) “ZonFS: A Storage Class Memory File System with Memory Zone Partitioning on Linux”, Jang Woong Kim, Jae-Hoon Kim, Awais Khan, Youngjae Kim and Sungyong Park</p> <p>6) “SUPERMAN: A Novel System for Storing and Retrieving Scientific-Simulation Provenance for Efficient Job Executions on Computing Clusters”, Young-Kyoon Suh and Jin Ma</p>
<b>Rincon</b>	2nd eCAS Workshop on Engineering Collective Adaptive Systems (eCAS 2017) (Session II, Management and Optimization of CAS)	<p>3) “Towards a Domain Specific Language for Engineering Collective Adaptive Systems”, Antonio Bucchiarone, Antonio Cicchetti, Martina De Sanctis</p> <p>4) “For Flux Sake: The Confluence of Socially- and Biologically-Inspired Computing for Engineering Change in Open Systems”, Jeremy Pitt, Emma Hart</p> <p>5) “Configuration management for QoS adaptation in multi-vehicle cruise control systems”, Arun Adiththan, Kaliappa Ravindran</p>
<b>Copper</b>	1st Workshop on Autonomic Management of Large Scale Container-based Systems (AMLCS) (Session II)	<p>1) “SWITCHing from multi-tenant to event-driven videoconferencing services”, Jernej Trnkoczy, Uroš Paščinski, Sandi Gec and Vlado Stankovski</p> <p>2) “In Search of the Ideal Storage Configuration for Docker Containers”, Vasily Tarasov, Lukas Rupperecht, Dimitrios Skourtis, Amit Warke, Dean Hildebrand, Mohamed Mohamed, Nagapramod Mandagere, Wenji Li, Ming Zhao and Raju Rangaswami</p> <p>3) “Auto-scaling of containers: the impact of relative and absolute metrics”, Emiliano Casalicchio and Vanessa Perciballi</p>

**12:30 PM – 2:00 PM – BOX LUNCH - Catalina and Tucson Rooms**

**2:00 PM – 3:30 PM - CONCURRENT BREAKOUT SESSIONS**

<b>North Ballroom</b>	Doctoral Symposium (Session III)	<p><b>Moderator:</b> Gregory Ditzler, The University of Arizona</p> <p><b>Students:</b>          Jesus Pacheco and Sara Ahmad Makki          Edward Richter and Sam Gianelli          Nirmal Kumbhare and Arun Adiththan          Eduard Renart and Michael John Trotter          Ehsan Esmaili and Xiaoyang Zhu          Shalaka Satam and Chris Frederickson</p>
<b>Santa Rita</b>	Automation of Cloud Configuration and Operations (ACCO) Workshop (Session III)	<p>6) “Into the Storm: Descrying Optimal Configurations using Genetic Algorithms and Bayesian Optimization”, Michael Trotter, Grace Liu and Timothy Wood</p> <p>7) “A Host-Agnostic, Supervised Machine Learning Approach to Automated Overload Detection in Virtual Machine Workloads”, Eli Dow and Jeanna Matthews</p> <p>8) “An incremental approach to data integration in presence of access control policies”, Mokhtar Sellami, Mohand-Said Hacid and Mohamed Mohsen Gammoudi</p>
<b>Tubac</b>	The 5th International Workshop on Autonomic Management of high performance Grid and Cloud Computing (AMGCC'17) (Session III)	<p>7) “A Study on Optimal Scheduling using High-Bandwidth Memory of Knights Landing Processor”, Seungwoo Rho, Geunchul Park, Jiksoo Kim, Seoyoung Kim and Dukyun Nam</p> <p>8) “A Hybrid Cloud Resource Clustering Method using Analysis of Application Characteristics”, Yoori Oh and Yoonhee Kim</p>
<b>Rincon</b>	2nd eCAS Workshop on Engineering Collective Adaptive Systems (eCAS 2017) (Session III, Management and Optimization of CAS)	<p>6) “RoleDiSCo: A Middleware Architecture and Implementation for Coordinated On-Demand Composition of Smart Service Systems in Decentralized Environments”, Markus Wutzler, Thomas Springer, Alexander Schill</p> <p>7) “Error in Self-Stabilizing Spanning-Tree Estimation of Collective State”, Yuanqiu Mo, Jacob Beal, Soura Dasgupta</p> <p>8) “Parameterisation and Optimisation Patterns for MAPE-K Feedback Loops”, Verena Kloes, Thomas Goethel, Sabine Glesner</p>
<b>Copper</b>	1st Workshop on Autonomic Management of Large Scale Container-based Systems (AMLCS) (Session III)	<p><b>Invited Talk:</b> Alan Sill  <b>Topic:</b> “Emulation of Automated Control of Large Data Centers At Scale Using Containers”</p> <p>4) “FID: A Faster Image Distribution System For Docker Platform”, Kangjin Wang, Yong Yang, Ying Li, Hanmei Luo and Lin Ma</p> <p>5) “Quality of Service models for Micro-services and their integration into the SWITCH IDE”, Polona Štefanič, Matej Cigale, Andrew Jones and Vlado Stankovski</p>
<b>Presidio</b>	International Workshop on Autonomic Systems for Big Data Analytics (ASBDA 2017) (Session I)	<p><b>Keynote Speaker:</b> TBA</p>
<b>Agave</b>	3rd International Workshop on Data-driven Self-regulating Systems (DSS 2017) (Session I)	<p>“Introduction”, Evangelos Pournaras</p> <p><b>Keynote:</b> Mark Yao          Title: “Orchestration of Electrical Power Grid with Transactive Distributed Energy Resources (DER)”</p> <p><b>Artifact 1:</b> “Self-regulatory Sharing Economies in Smart Grids and Smart Cities”, Evangelos Pournaras</p> <p><b>Artifact 2:</b> “Self-regulatory Consumption via Self-determined Personalized Ratings”, Thomas Asikis</p>

**3:30 PM – 4:00 PM - COFFEE BREAK - Catalina and Tucson Rooms**

**4:00 PM – 5:30 PM - CONCURRENT BREAKOUT SESSIONS**

<b>North Ballroom</b>	Doctoral Symposium (Session IV)	Mentoring
<b>Tubac</b>	The 5th International Workshop on Autonomic Management of high performance Grid and Cloud Computing (AMGCC'17) (Session IV)	TBA
<b>Rincon</b>	2nd eCAS Workshop on Engineering Collective Adaptive Systems (eCAS 2017) (Session IV)	9) "The Principled Violation of Policy: Norm Flexibilization in Open Self-Organising Systems", David Burth Kurka, Jeremy Pitt  <b>Panel Discussion:</b> "Themes and Challenges in Engineering CAS", Chair: Jacob Beal <b>Panel participants:</b> Mirko D'Angelo, Danilo Pianini, Verena Klos, David Burth Kurka
<b>Copper</b>	1st Workshop on Autonomic Management of Large Scale Container-based Systems (AMLCS) (Session IV)	<b>Invited Talk:</b> Abdelwahed, Sherif - Distributed Performance Management for Large-Scale Enterprise Systems: A Model-based Approach  <b>Final discussion</b> on future/hot topics/challenges among the participants, organizer and invited speaker
<b>Presidio</b>	International Workshop on Autonomic Systems for Big Data Analytics (ASBDA 2017) (Session II)	1) "Integrating Short History for Improving Clustering Based Network Traffic Anomaly Detection", Philippe Owezarski and Juliette Dromard 2) "Tracing Distributed Data Stream Processing Systems", Zoltán Zvara, Péter Szabó, Gábor Hermann and Andras A. Benczur 3) "Fraud Analysis Approaches in the Age of Big Data - A Review of State of the Art", Sara Makki, Rafiqul Haque, Yehia Taher, Zainab Assaghir, Gregory Ditzler, Mohand-Saïd Hacid and Hassan Zeineddine
<b>Agave</b>	3rd International Workshop on Data-driven Self-regulating Systems (DSS 2017) (Session II)	1) "Instance-based Learning for Hybrid Planning", Ashutosh Pandey, Bradley Schmerl, David Garlan 2) "Towards Large-scale Material-integrated Computing: Self-Adaptive Materials and Agents", Stefan Bosse, Dirk Lehmhus 3) "Predicting Coalition Formation in South China Sea Disputes: An Analysis with an Agent-Based Model", Li Ding

**6:00 PM – 8:00 PM – WELCOME RECEPTION - Union Gallery**

# FAS\* 2017



**TUESDAY, SEPTEMBER 19, 2017**

**8:00 AM – 5:00 PM - REGISTRATION - Diamond Atrium**

*PLEASE CHECK IN TO PICK UP YOUR NAME BADGE AND FOR ON-SITE REGISTRATION*

<b>9:00 AM – 9:30 AM</b>	<b>North Ballroom and South Ballroom</b>	Welcome Address by ICCAC and SASO Chairs	
<b>9:30 AM – 10:30 AM</b>	<b>South Ballroom</b>	Plenary Session	<b>Keynote 1 – Prof. Geoffrey West, Santa Fe Institute, USA</b> <b>Topic:</b> “The Simplicity and Unity Underlying the Complexity of Life from Growth and Innovation to Mortality, Sustainability and the Pace of Life in Organisms, Cities and Companies”

**10:30 AM – 11:00 AM - COFFEE BREAK - Catalina and Tucson Rooms**

## 11:00 AM – 12:30 AM - CONCURRENT BREAKOUT SESSIONS

<b>South Ballroom</b>	<b>ICCAC Session 1: Autonomic Cloud Computing - I</b>	<ol style="list-style-type: none"> <li>1) “A Black-box Approach for Detecting Systems Anomalies in Virtualized Environments”, Olumuyiwa Ibidunmoye, Ewnetu Bayuh Lakew and Erik Elmroth</li> <li>2) “An Autonomic Cloud Application Placement Tool Based on Cost Criteria”, Nabil Abdennadher</li> <li>3) “Towards Designing Cost-Optimal Policies to Utilize IaaS Clouds under Online Learning”, Xiaohu Wu, Patrick Loiseau and Esa Hyytia</li> </ol>
<b>North Ballroom</b>	<b>SASO Session 1: Networks</b>	<ol style="list-style-type: none"> <li>1) “Self-organized Coverage Optimisation in Smart Camera Networks”, Lukas Esterle</li> <li>2) “Self-stabilising target counting in wireless sensor networks using Euler integration”, Danilo Pianini, Mirko Viroli, and Simon Dobson</li> <li>3) “PacketSkip: Skip Graph for Multidimensional Search in Structured Peer-to-Peer Systems”, Andreas Disterhöft, Andreas Funke, and Kalman Graffi</li> </ol>

**12:30 PM – 2:00 PM – LUNCH BUFFET - Catalina and Tucson Rooms**

## 2:00 PM – 3:30 PM – PLENARY SESSION

<b>South Ballroom</b>	Panel	<b>Operator:</b> H.J. Siegel, Colorado State University  <b>Panel Title:</b> Digital Convergence: What Academic Cloud, Autonomic, Self-Adaptive, and Self-Organizing Research is Useful for Industry in the Short and Long Term?
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		<p><b>Speakers:</b></p> <p>Ilkay Altintas, University of California at San Diego</p> <p>Fredricka Darema, US AFOSR (Air Force Office of Scientific Research)</p> <p>Salima Hassas, University of Lyon</p> <p>Heiko Ludwig, IBM Almaden</p> <p>Naveen Sharma, Rochester Institute of Technology</p> <p>Conrad S. Tucker, The Atlantic Council</p>
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**3:30 PM – 4:00 PM - COFFEE BREAK - Catalina and Tucson Rooms**

**4:00 PM – 6:30 PM – Posters, Demos, and Reception - Union Gallery**

# FAS\* 2017



**WEDNESDAY, SEPTEMBER 20, 2017**

**9:00 AM – 4:00 PM - REGISTRATION - Diamond Atrium**

*PLEASE CHECK IN TO PICK UP YOUR NAME BADGE AND FOR ON-SITE REGISTRATION*

<b>9:30 AM – 10:30 AM</b>	<b>South Ballroom</b>	Plenary Session	<b>Keynote 2 - Dr. Lalit K. Mestha, Principal Engineer, GE Global Research, New York, USA</b>  <b>Topic: "Industrial Immune Response to Cyberattacks – Is this even possible?"</b>
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**10:30 AM – 11:00 AM - COFFEE BREAK - Catalina and Tucson Rooms**

**11:00 AM – 12:30 PM - CONCURRENT BREAKOUT SESSIONS**

<b>South Ballroom</b>	<b>ICCAC Session 2: Autonomic Cloud Computing - II</b>	<ol style="list-style-type: none"> <li>4) "2TL: a Scheduling Algorithm for Meeting the Latency Requirements of Bursty I/O Streams at User-Specified Percentiles", Yipkei Kwok, Patricia Teller and Sarala Arunagiri</li> <li>5) "Escada: Predicting Virtual Machine Network Bandwidth Demands for Elastic Provisioning in IaaS Clouds", Jonatas A Marques and Rafael R Obelheiro</li> <li>6) "Analysis and Autonomic Elasticity Control for Multi-Server Queues Under Traffic Surges", Venkat Tadakamala and Daniel Menasce</li> </ol>
<b>North Ballroom</b>	<b>SASO Session 2: Organizations and Institutions</b>	<ol style="list-style-type: none"> <li>1) "Interactional Justice and Self-Governance of Open Self-Organising Systems", Jeremy Pitt</li> <li>2) "A Requirements Model for Adaptive Multi-Organizational Systems", Mahmut Tamersoy, Erdem Eser Ekinci, R. Cenk Erdur, and Oguz Dikenelli</li> </ol>

**12:30 PM – 2:00 PM – LUNCH BUFFET - Catalina and Tucson Rooms**

**2:00 PM – 3:30 PM - CONCURRENT BREAKOUT SESSIONS**

<b>South Ballroom</b>	<b>ICCAC Session 3: Self-Protection Techniques of Computing Systems, Networks and Applications</b>	<ol style="list-style-type: none"> <li>1) "SDR-based Resilient Wireless Communication", Firas Almoualem, Pratik Satam, Jang-Geun Ki and Salim Hariri</li> <li>2) "Autofotainment Security Development Framework (ASDF) for Smart Cars", Pratik Satam, Jesus Pacheco and Salim Hariri</li> <li>3) "A Self-Protection Agent using Error Correcting Output Codes to Secure Computers and Applications", Fabian De La Pena Montero, Salim Hariri and Gregory Ditzler</li> </ol>
<b>North Ballroom</b>	<b>SASO Session 3: Resource and Network</b>	<ol style="list-style-type: none"> <li>1) "Xor-Based Topology Management Beyond Kademlia", Erick</li> </ol>

	<b>Management</b>	Lavoie, Miguel Correia, and Laurie Hendren 2) "Resource Adaptation via Test-Based Software Minimization", Arpit Christi, Alex Groce, and Rahul Gopinath 3) "Self-Adaptive Safe Provisioning of Wireless Power using DCOPs", Coen van Leeuwen, Sinan Yildirim, and Przemyslaw Pawelczak
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**3:30 PM – 5:20 PM – OPTIONAL EVENT – UNIVERSITY OF ARIZONA MIRROR LAB**

*An optional tour in The University of Arizona Mirror Lab (<http://mirrorlab.as.arizona.edu/>). The University of Arizona, College of Science is ranked #1 among observational, theoretical and space astronomy programs in the U.S. These new generation giant optical telescopes will be changing the way we explore the Universe!*

*For the mirror lab tour, we only have 2 sessions available for 15 visitors each. These specially arranged tours begin at 3:30 PM and 4:30 PM and each tour will be 50 minutes. (\$15 USD per person)*

**4:45 PM - 5:15 PM – BUSES LOADING AT UNIVERSITY OF ARIZONA MIRROR LAB (UA FOOTBALL STADIUM)**

**6:30 PM – BUSES DEPART UA FOR OLD TUCSON STUDIOS FOR CONFERENCE DINNER**

**6:30 PM CONFERENCE DINNER – OLD TUCSON STUDIOS**

*Old Tucson is a movie studio and theme park just west of Tucson, Arizona, adjacent to the Tucson Mountains and close to the western portion of Saguaro National Park. It was original built in 1939 by Columbia Pictures on a Pima County-owned site as a replica of 1860s Tucson for the movie Arizona, starring William Holden and Jean Arthur. <http://oldtucson.com/>*



# FAS\* 2017



THURSDAY, SEPTEMBER 21, 2017

9:30 AM – 10:30 AM	South Ballroom	Plenary Session	<b>Keynote 3 - Prof. David Garlan, Carnegie Mellon University, USA</b> <b>Topic: "Human-machine synergy: Bringing humans and autonomy into balance"</b>
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10:30 AM – 11:00 AM - COFFEE BREAK - Catalina and Tucson Rooms

## 11:00 AM – 12:30 PM - CONCURRENT BREAKOUT SESSIONS

South Ballroom	ICCAC Session 4: Autonomic Computing Systems, Tools and Applications - I	<ol style="list-style-type: none"> <li>7) "Runtime modifications of Spark data processing pipelines", Elena Lazovik, Michel Medema, Toon Albers, Erik Langius and Alexander Lazovik</li> <li>8) "Efficient Collaborative Approximation in MapReduce Without Missing Rare Keys", Nitin, Mithuna Thottethodi, T N Vijaykumar and Milind Kulkarni</li> <li>9) "Autonomic Management of 3D Cardiac Simulations", Ehsan Esmaili, Ali Akoglu, Gregory Ditzler, Salim Hariri, Jenő Szep and Talal Moukabary</li> <li>10) "Autonomic Identity Framework for the Internet of Things", Xiaoyang Zhu, Youakim Badr, Jesus Pacheco and Salim Hariri</li> </ol>
North Ballroom	SASO Session 4: Fundamentals of Self-Adaptation	<ol style="list-style-type: none"> <li>1) "Edge Detection in Static and Dynamic Environments using Robot Swarms", Yara Khaluf</li> <li>2) "Compositional Blocks for Optimal Self-Healing Gradients", Giorgio Audrito, Roberto Casadei, Ferruccio Damiani, and Mirko Viroli</li> <li>3) "Multi-level control mechanisms for non-structured and structured 2-dimensional self-assembling", Ciprian Paduraru, Radu Mincu, and Gheorghe Stefanescu</li> </ol>

12:30 PM – 2:00 PM – LUNCH BUFFET - Catalina and Tucson Rooms

## 2:00 PM – 3:30 PM - CONCURRENT BREAKOUT SESSIONS

South Ballroom	ICCAC Session 5: Autonomic Computing Systems, Tools and Applications - II	<ol style="list-style-type: none"> <li>4) "Value-Based Scheduling for Oversubscribed Power-Constrained Homogeneous HPC Systems", Nirmal Kumbhare, Cihan Tunc, Dylan Machovec, Ali Akoglu, Salim Hariri and Howard Jay Siegel</li> <li>5) "Application-Specific Autonomic Cache Tuning for General Purpose GPUs", Sam Gianelli, Edward Richter, Diego Jimenez, Hugo Valdez, Tosiron Adegbija and Ali Akoglu</li> <li>6) "Design Framework for Reliable Multiple Autonomic Loops in Smart Environments", Adja Ndeye Sylla, Maxime Louvel, Eric Rutten and Gwenaël Delaval</li> </ol>
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		7) "Cloud-assisted Tree-based P2P System for Low Latency Streaming", Lucas Provensi, Frank Eliassen and Roman Vitenberg
<b>North Ballroom</b>	<b>SASO Session 5: Fundamentals of Self-Organization</b>	1) "Decentralized Coordination of Adaptations in Distributed Self-Adaptive Software Systems", Martin Weißbach, Philipp Chrszon, Thomas Springer, and Alexander Schill 2) "Embedding Verification Concerns in Self-Adaptive System Code", Sharmin Jahan, Allen Marshall, and Rose Gamble 3) "Identifying Self-Organization and Adaptability in Complex Adaptive Systems", Lachlan Birdsey, Claudia Szabo, and Katrina Falkner

**3:30 PM – 4:00 PM - COFFEE BREAK - Catalina and Tucson Rooms**

<b>4:00 PM – 5:30 PM - CONCURRENT BREAKOUT SESSIONS</b>		
<b>South Ballroom</b>	<b>ICCAC Session: Dynamic Data Driven Application Systems</b>	1) "Cybersecurity Policies and their Impact on Dynamic Data Driven Application Systems", Conrad Tucker, Mathew Burrows, Kevin Lesniak and Samuel Klein 2) "Pulsar: Enabling Dynamic Data-driven IoT Applications", Eduard Renart, Daniel Balouek-Thomert and Manish Parashar 3) "DDDAMS-based Border Surveillance and Crowd Control via Aerostats", UAVs, and Ground Sensors", Seunghan Lee, Sara Minaeian, Yifei Yuan, Jian Liu and Young-Jun Son 4) "Resilient Dynamic Data Driven Application Systems as a Service (rDaaS): A Design Overview", Cihan Tunc, Salim Hariri and Youakim Badr 5) "High Performance Machine Learning (HPML) Framework to Support DDDAS Decision Support Systems: Design Overview", Gregory Ditzler, Salim Hariri and Ali Akoglu
<b>North Ballroom</b>	<b>SASO Panel</b>	TBA

<b>5:30 PM – 6:00 PM - CONCURRENT BREAKOUT SESSIONS</b>		
<b>South Ballroom</b>	<b>ICCAC Closing Session</b>	
<b>North Ballroom</b>	<b>SASO Closing Session</b>	

# FAS\* 2017



THURSDAY, SEPTEMBER 21, 2017

9:30 AM – 10:30 AM	South Ballroom	Plenary Session	<b>Keynote 3 - Prof. David Garlan, Carnegie Mellon University, USA</b> Topic: "Human-machine synergy: Bringing humans and autonomy into balance"
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10:30 AM – 11:00 AM - COFFEE BREAK - Catalina and Tucson Rooms

## 11:00 AM – 12:30 PM - CONCURRENT BREAKOUT SESSIONS

South Ballroom	<b>ICCAC Session 4: Autonomic Computing Systems, Tools and Applications - I</b>	11) Runtime modifications of Spark data processing pipelines, Elena Lazovik, Michel Medema, Toon Albers, Erik Langius and Alexander Lazovik 12) Efficient Collaborative Approximation in MapReduce Without Missing Rare Keys, Nitin, Mithuna Thottethodi, T N Vijaykumar and Milind Kulkarni 13) Autonomic Management of 3D Cardiac Simulations, Ehsan Esmaili, Ali Akoglu, Gregory Ditzler, Salim Hariri, Jenő Szep and Talal Moukabary 14) Autonomic Identity Framework for the Internet of Things, Xiaoyang Zhu, Youakim Badr, Jesus Pacheco and Salim Hariri
North Ballroom	<b>SASO Session 4: Fundamentals of Self-Adaptation</b>	4) Edge Detection in Static and Dynamic Environments using Robot Swarms, Yara Khaluf 5) Compositional Blocks for Optimal Self-Healing Gradients, Giorgio Audrito, Roberto Casadei, Ferruccio Damiani, and Mirko Viroli 6) Multi-level control mechanisms for non-structured and structured 2-dimensional self-assembling, Ciprian Paduraru, Radu Mincu, and Gheorghe Stefanescu

12:30 PM – 2:00 PM – LUNCH BUFFET - Catalina and Tucson Rooms

## 2:00 PM – 3:30 PM - CONCURRENT BREAKOUT SESSIONS

South Ballroom	<b>ICCAC Session 5: Autonomic Computing Systems, Tools and Applications - II</b>	8) Value-Based Scheduling for Oversubscribed Power-Constrained Homogeneous HPC Systems, Nirmal Kumbhare, Cihan Tunc, Dylan Machovec, Ali Akoglu, Salim Hariri and Howard Jay Siegel 9) Application-Specific Autonomic Cache Tuning for General Purpose GPUs, Sam Gianelli, Edward Richter, Diego Jimenez, Hugo Valdez, Tosiron Adegbija and Ali Akoglu 10) Design Framework for Reliable Multiple Autonomic Loops in Smart Environments, Adja Ndeye Sylla, Maxime Louvel, Eric Rutten and Gwenaél Delaval
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		11) Cloud-assisted Tree-based P2P System for Low Latency Streaming, Lucas Provensi, Frank Eliassen and Roman Vitenberg
<b>North Ballroom</b>	<b>SASO Session 5: Fundamentals of Self-Organization</b>	1) Decentralized Coordination of Adaptations in Distributed Self-Adaptive Software Systems, Martin Weißbach, Philipp Chrszon, Thomas Springer, and Alexander Schill 2) Embedding Verification Concerns in Self-Adaptive System Code, Sharmin Jahan, Allen Marshall, and Rose Gamble 3) Identifying Self-Organization and Adaptability in Complex Adaptive Systems, Lachlan Birdsey, Claudia Szabo, and Katrina Falkner

**3:30 PM – 4:00 PM - COFFEE BREAK - Catalina and Tucson Rooms**

<b>4:00 PM – 5:30 PM - CONCURRENT BREAKOUT SESSIONS</b>		
<b>South Ballroom</b>	<b>ICCAC Session: Dynamic Data Driven Application Systems</b>	1) Cybersecurity Policies and their Impact on Dynamic Data Driven Application Systems, Conrad Tucker, Mathew Burrows, Kevin Lesniak and Samuel Klein 2) Pulsar: Enabling Dynamic Data-driven IoT Applications, Eduard Renart, Daniel Balouek-Thomert and Manish Parashar 3) DDDAMS-based Border Surveillance and Crowd Control via Aerostats, UAVs, and Ground Sensors, Seunghan Lee, Sara Minaeian, Yifei Yuan, Jian Liu and Young-Jun Son 4) Resilient Dynamic Data Driven Application Systems as a Service (rDaaS): A Design Overview, Cihan Tunc, Salim Hariri and Youakim Badr 5) High Performance Machine Learning (HPML) Framework to Support DDDAS Decision Support Systems: Design Overview, Gregory Ditzler, Salim Hariri and Ali Akoglu
<b>North Ballroom</b>	<b>SASO Panel</b>	TBA

<b>5:30 PM – 6:00 PM - CONCURRENT BREAKOUT SESSIONS</b>		
<b>South Ballroom</b>	<b>ICCAC Closing Session</b>	
<b>North Ballroom</b>	<b>SASO Closing Session</b>	