74th Meeting of the IFIP 10.4 Working Group on Dependable Computing and Fault Tolerance

June 28- July 01, 2018 Clervaux, Luxembourg

Welcome!

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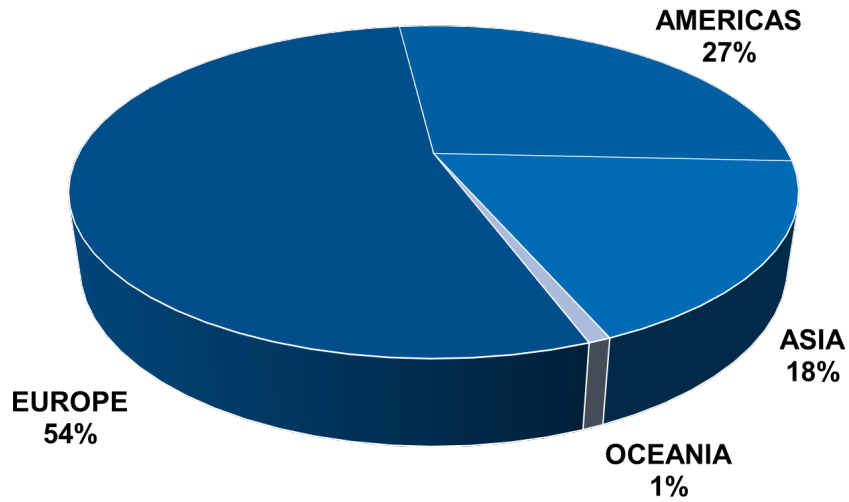
Business Meeting

Business Meeting Agenda

- IEEE/IFIP DSNs – DSN-2018 wrap-up, DSN 2019

- Upcoming events: Future DSNs and other sponsored events …

- Awards

- Future WG Meetings AND workshops

- Workshop ideas

- Members only portion

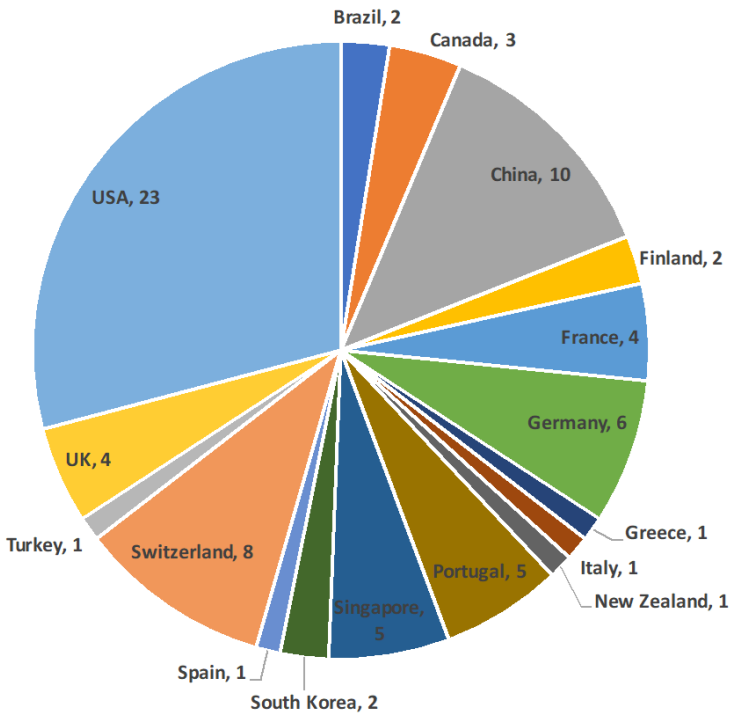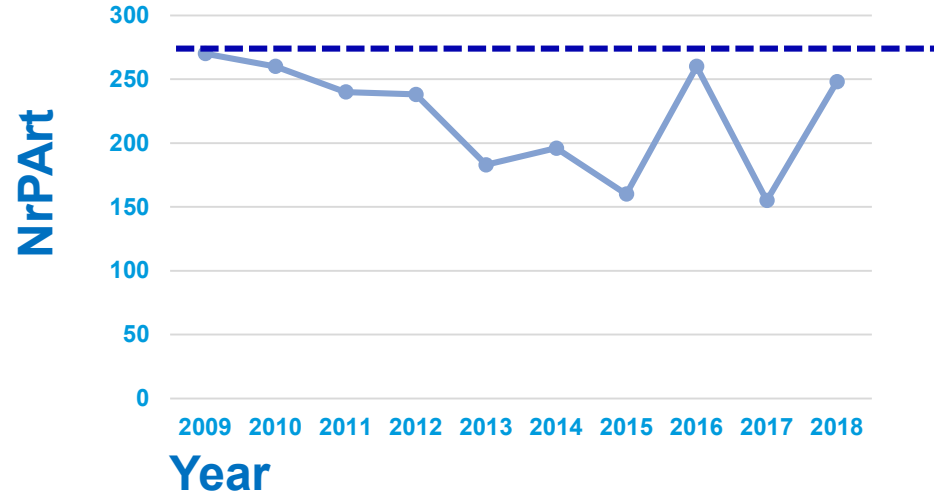# IEEE/IFIP International Conference on Dependable Systems and Networks

- **Luxembourg City, Luxembourg (2018)**
  - General Chair: Paulo Esteves-Veríssimo (University of Luxembourg, Luxembourg)
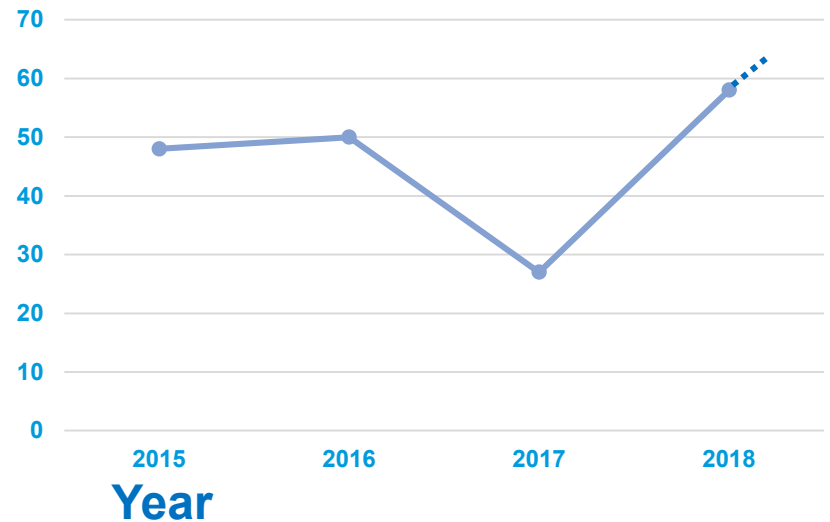 - Program co-Chairs: Gilles Muller (LIP6, INRIA, FR), Marco Vieira (Univ. Coimbra, PT)

DSN 2018

AMERICAS 27%

ASIA 18%

OCEANIA 1%

EUROPE 54%

All Registrations

NrPArt / Year

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Student registrations

Year

2015 2016 2017 2018

Brazil, 2
Canada, 3
China, 10
Finland, 2
France, 4
Germany, 6
Greece, 1
Italy, 1
New Zealand, 1
Portugal, 5
Singapore, 5
South Korea, 2
Spain, 1
Switzerland, 8
Turkey, 1
UK, 4
USA, 23

IEEE/IFIP International Conference on Dependable Systems and Networks

- **Portland, Oregon, USA (2019)**
  - **General Chair: Cristian Constantinescu (AMD, USA)**
  - **Program co-Chairs: Karthik Pattabiramam (U. British Columbia, CA) and Fernando Pedone (Univ. Lugano, CH)**

DSN 2019

Portland, Oregon, USA

June 24 – 27, 2019

- Welcome
- Call for Contributions ▾
- Committees ▾
- Awards ▾
- Registration
- Conference Venue ▾
- Student Plaza ▾
- Conference Program ▾
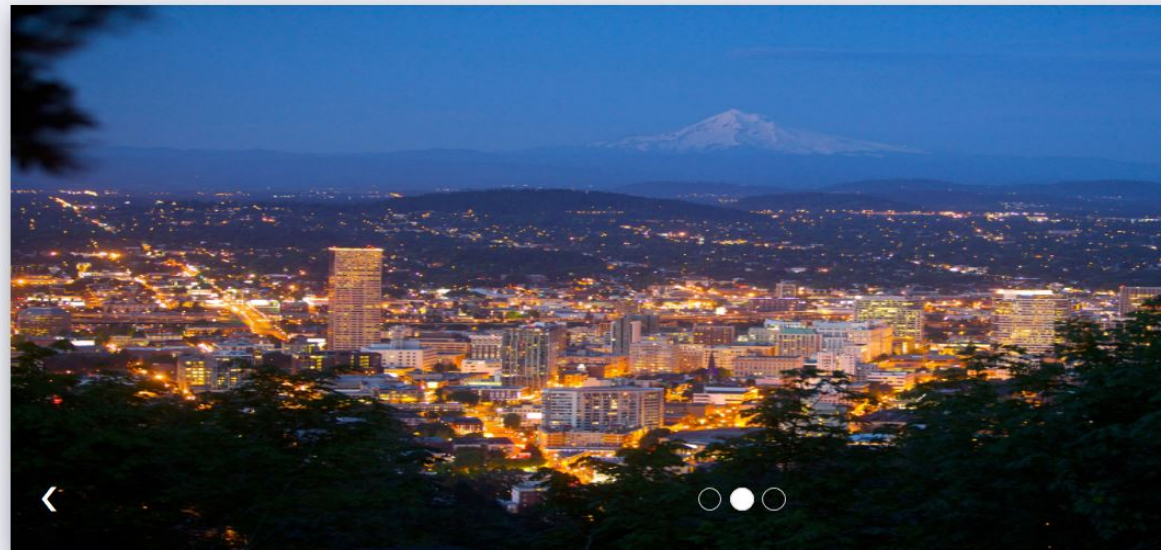
Welcome

IEEE/IFIP International Conference on Dependable Systems and Networks

- **Valencia, Spain (2020)**
  - **General Chair:Pedro Gil Vicente and Juan Carlos Ruiz (U. Valencia), Al Avizienis (Honorary)**
  - **Program co-Chairs: Haining Wang (U. Delaware, US) and Kaustubh Joshi (AT&T, US)**

IEEE/IFIP International Conference on Dependable Systems and Networks

- **Taipei, Taiwan (2021)**
  - ◆ **General co-Chairs:** Sy-Yen Kuo (NTU, TW) and Yennun Huang (Acad. Sinica, TW)
  - ◆ **Program co-Chairs:** TBD

Upcoming Events

Other, in-collaboration or related events

- PRDC 2018, December, Taipei, Taiwan

- EDCC 2018, September, Iasi, Romania

- SAFECOMP 2018, September, Västerås, Sweden

bsi.

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Connected automotive ecosystems – Impact of security on safety – Code of practice

Number:	PAS 11281
Type:	PAS
Committee:	ZZ/1
Review published:	18 Jun 2018
Review end date:	16 Jul 2018
Categories:	Unclassified documents

Read Draft →

Alert a colleague 👥

Associated materials (click link to download). You will need to be logged in to download any files:

PDF of draft PAS 11281. Do NOT submit comments via this PDF. ONLY comments submitted via the BSI online draft review system will be accepted. (PDF document, 1 MB)

Get Adobe Reader — For PDF files, Adobe Acrobat Reader can be downloaded from the Adobe website.

Draft Scope:

This PAS gives recommendations for managing security risks that might lead to a compromise of safety in a connected automotive ecosystem.

The PAS covers both the entire connected automotive ecosystem and its constituent systems. The ecosystem includes vehicles (both those used on public roads, such as cars, and those used for off-road activities such as farming and mining), as well as road-side and other static infrastructure, communication channels between vehicles and infrastructure, servicing and repair facilities, digital services, data and information and other services that support the proper operation of road transport. All levels of vehicle automation and autonomy are in scope.

Award Updates

Award Updates

- **William C. Carter PhD Dissertation Award in Dependable Computing 2018**
  - ◆ Scope: significant contribution to the field of dependable computing through his or her graduate dissertation research
  - ◆ Committee:
  - ◆ Michael Lyu, Chinese Univ. Hong-Kong (Chair), Jacob Abraham, Univ. Texas at Austin, Bojan Cukic, Univ. North Carolina, Susanna Donatelli, Univ. Torino, Michel Raynal, IRISA-IFSIC and PolyU (HK)

- **URL: www.dsn.org**

- **The winner of the DSN 2018 edition was:**
  - ◆ CHRISTOPH BORCHERT, from the Technische Universität Dortmund, Germany, for his thesis titled "ASPECT-ORIENTED TECHNOLOGY FOR DEPENDABLE OPERATING SYSTEMS"

Award Updates

- **DSN Best paper award (2018)**
  - ◆ **Scope: Best paper accepted and presented at DSN.**
  - ◆ **Committee: joint decision of: PC -> SC -> DSN audience**
  - ◆ **Selection:**
    - ☞ finished
- **URL: www.dsn.org**

- **Winner:**
  - ◆ K. Spirovska, D. Didona, W. Zwaenepoel, *"Wren: Nonblocking Reads in a Partitioned Transactional Causally Consistent Data Store"*

Award Updates

- **Jean-Claude Laprie Award in Dependable Computing** (2018)
  - ◆ **Scope:** Outstanding paper(s) have significantly influenced the theory and/or practice of dependable computing.
  - ◆ **Committee:** appointed by IFIP WG10.4

    Professor Aad van Morsel (chair), Dr. Yen-Nun Huang, Professor Zbigniew Kalbarczyk, Professor Miroslaw Malek and Professor Evgenia Smirni.

  - ◆ **Selection:**
    - ☞ finished

- **URL:** **http://www.dependability.org/wg10.4/laprie-award.html**

- **Winner(s):**
  - ◆ **Algirdas Avizienis and Liming Chen, "On the implementation of N-version programming for software fault tolerance during execution", in Proc. COMPSAC, 1977, 149-155**

Future Working Group Meetings

Champery, Switzerland
Host: Pascal Felber

Workshop: Assured Autonomy (org:
Marco Vieira (U. Coimbra, PT), Cristina
Nita-Rotaru (Northeastern U., US))
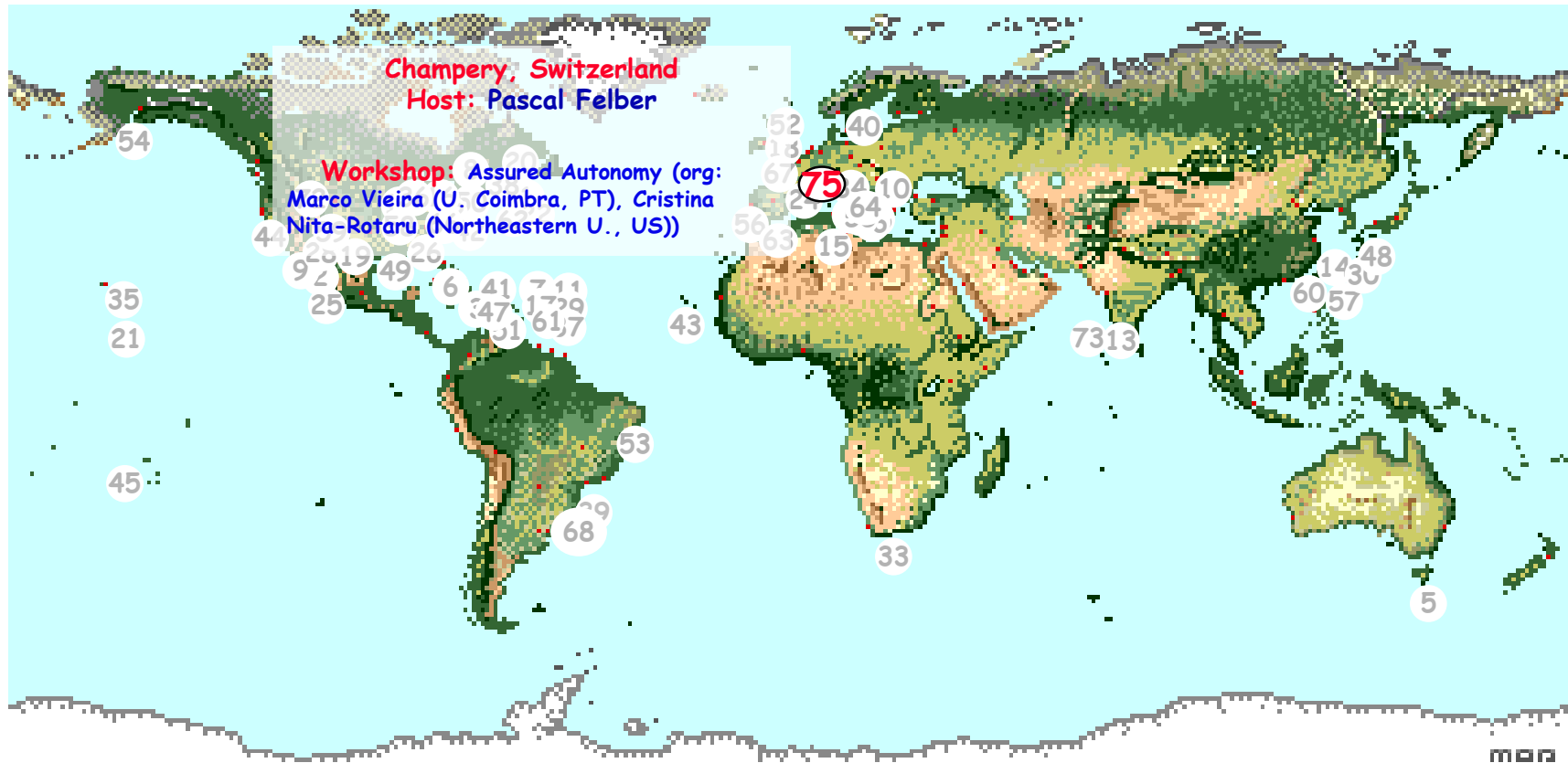
72 Longmont,CO, US — (summer 17)   73 Goa, India — (winter 18)   74 Clervaux, Luxembourg — (summer 18)

74th Meeting (summer 2018)

DONE!!!

Location: Clervaux, Luxembourg (after DSN18)

Host: Paulo Esteves-Veríssimo

Dates: 28jun-1jul, after DSN

Hotel: Hotel International***** - Clervaux (meeting venue)

Costs: Hotel - 110 €/night; Registration +-450€

- Hotel Includes
  o Breakfast, WIFI, Spa area
- Registration Includes:
  - Welcome Reception; lunches and coffee breaks; Excursion; Banquet; charter bus from DSN and back

Workshop: Technological and societal challenges to blockchain dependability and security, org. Paulo Veríssimo, Jiangshan Yu (U. Luxembourg, LU)

75th Meeting (winter 2019)

PROPOSAL APPROVED!

Location: Champéry, Switzerland

Host: Pascal Felber & Marcelo Pasin

Dates: 24-28 Jan, 2019 (Thu to Mon)

Hotels: Hôtel Suisse, venue,

and some rooms in a 2nd one

Costs: ~ 150€ single /night hotel; ~ 350€-400€ reg.

- Hotel Includes
  - Breakfast, Several facilities, WiFi

Workshop : Assured Autonomy (org: Marco Vieira (U. Coimbra, PT), Andrea Bondavalli (University of Firenze, IT))

IFIP WG 10.4 — 75th Meeting (Winter 2019) proposal

Champéry, Switzerland

Local Organizers: Pascal Felber & Marcelo Pasin

University of Neuchâtel

http://www.champery.ch/en.html

https://www.myswitzerland.com/en-ch/champery.html

Champéry

- Village in the Swiss Alps
- On the largest international ski area in the world
  - 194 ski lifts, >650 km slopes
  - Cross-border between France and Switzerland
- Hôtel Suisse: family-owned, simple yet comfortable
  - Breakfast, tea & (amazing homemade) cakes included
  - Depending on dates: some participants in nearby hotel
- Affordable prices (for CH)

Hôtel Suisse

- In the heart of Champéry village

- Family owned

- 35 rooms
  - More rooms with neighbouring hotels

Access

- Easily reachable by train/car
  - ~2h from Geneva

- Nearest airport: GVA
  - 100+ destinations worldwide
  - Major hub of EasyJet
  - Affordable flights
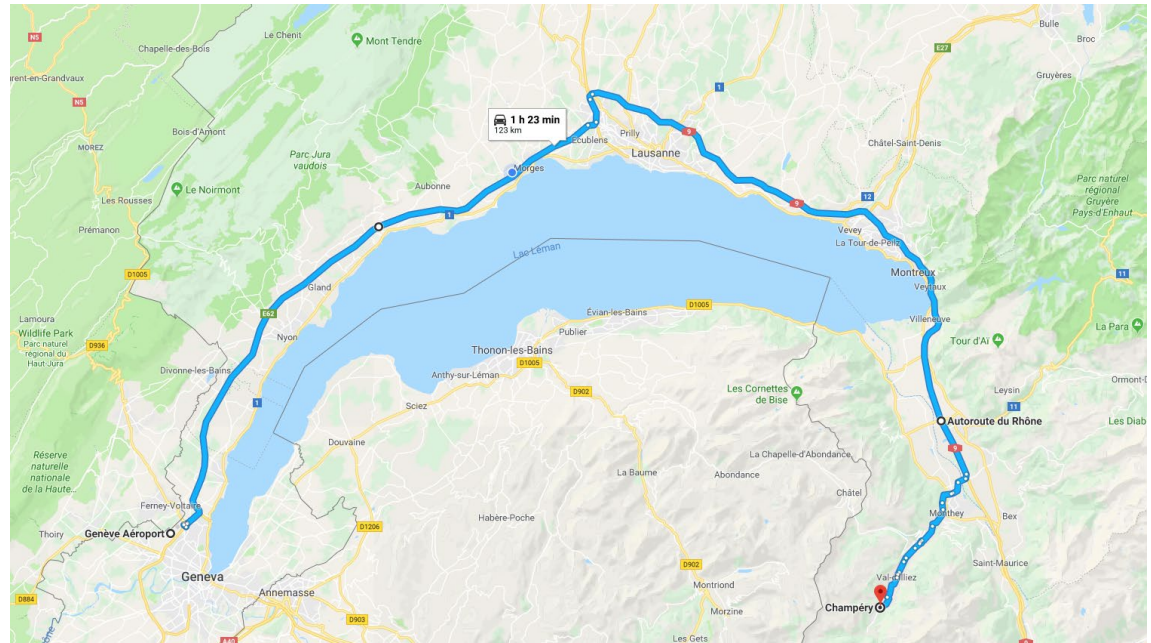
Meeting program

1) 24-28 Jan, 2019 (Thu to Mon)

Hôtel Suisse, venue

and some rooms in a 2nd one

- Program:
    - Day 1: reception (evening)
    - Day 2: workshop day one
    - Day 3: workshop day two
    - Day 4: excursion
    - Day 5: research reports (morning), end after lunch

Facilities

- Conference room for 50+ people

- 30m from Hotel Suisse (across street)

- Wi-fi access

Pricing (current CHF/€ rate)

- Similar to recent Winter meetings (e.g., New Zealand)
  …but easier and cheaper access for most participants

- Hotel package:
  - ~150€ per person per night, single room with breakfast
  - ~115€ per person per night, double room with breakfast
  - Extra days (right before or after) at same promotional rates

- Registration including:
  - Conference room, coffee-breaks, refreshments
  - Evening dinner reception, lunch 3 days
  - Excursion day including lunch, and meeting banquet
  - ~350€-400€ per person depending on excursion

Some possible excursions (multiple options)

- Glacier 3000 at the Diablerets
- Snowshoe promenade with cheese raclette in a typical cabin
- Wine degustation (Oenopark)
- Chocolate factory and Gruyère cheese factory
- Chillon castle

76th Meeting (summer 2019)

PROPOSALS WELCOME !

Location: near Portland, Oregon, after DSN 2019

Host: TBD

Dates: TBD

Hotels: TBD

Costs: ~ TBD /night hotel; ~ TBD reg.

- Hotel Includes
  - Breakfast, Several facilities, WiFi

Organizer: WANTED!!

Workshop : Workshop ideas TBD

Major Workshop Topics

distributed computing, parallel computing, real-time systems, certification of dependable systems, specification methods, design diversity, specification and validation of hard dependability requirements, methodologies for experiments, VLSI testing and fault tolerance, hardware- and-software testing and validation, fault tolerance in new architectures, communication networks, algorithms for distributed agreement, cars and computers, accidental vs. intentional faults, robotics and dependability, limits in dependability, avionics and dependability, dependability issues in medical computing, security and dependability, tools for dependable system design and evaluation, railway safety, safety cases, dependability in automotive electronics, computer systems benchmarking with applications to dependability, time and dependability, dependability, survivability, and integrity in e-commerce transactions and infrastructure, dependability benchmarking, utilization of formal methods in dependable systems, challenges and directions for dependable computing, dependability and survivability, middleware for adaptivity and dependability, measuring assurance in cyberspace + hardware design and dependability, open source and dependability, human computer interaction and dependability, autonomic web computing, grid computing and dependability, nomadic computing and dependability, infrastructure security and operational challenges of service provider networks, critical infrastructure protection, achieving and assessing safety, cps dependability, dependability in cloud systems, security assessment: metrics and methods, electrical smart grids sec&dep, science of cyber security, Autonomous and Cooperative Intelligent Vehicles, Systems Dependability in the Internet of Things (IoT), Smart Factories: Challenges for Depend. and Sec. Computing, Dependable News: Detecting and Countering Deception, Emerging Challenges for Resilience of Critical Cloudbased Operations: When Privacy meets Availability, Technological and societal challenges to blockchain dependability and security

Dependability and Security research and its outlets: present and future

- Crucial moment of the development of our community, and its major outlets, DSN as the flagship conference

- In the near future, it would be appropriate to foster some discussion about the topic in headline, especially under the light of the effort (decided by the DSN SC) to focus DSN more sharply:

  - DSN has pioneered the fusion between dependability and security research, understanding the need to simultaneously fight against cyber-attacks, accidental faults, design errors, and unexpected operating conditions.

  - Its distinctive approach to both accidental and malicious faults made DSN the flagship conference for research furthering robustness and resilience of today's wide spectrum of computing systems, with dependability and security treated under a common body of knowledge.

Workshops outlook

- Summer 2016 (Sorèze, France)
  - ◆ Smart Factories: Challenges for Depend. and Sec. Computing, DONE
- Winter 2017 (Queenstown, NZ)
  - ◆ Research-papers workshop, DONE
- Summer 2017 (Logmont, US)
  - ◆ Dependable News: Detecting and Countering Deception, DONE
- Winter 2018 (Goa, India)
  - ◆ Emerging Challenges for Resilience of Critical Cloud-based Operations: When Privacy meets Availability, DONE
- Summer 2018 (Clervaux, LU)
  - ◆ Technological and societal challenges to blockchain depend. and security, DONE
- **Winter 2019 (Champéry, CH)**
  - ◆ **Assured Autonomy (org: Marco Vieira (U. Coimbra, PT), Andrea Bondavalli (University of Firenze, IT))**

- **Summer 2019 (?)**
  - ◆ **TBD**

Workshop ideas
(FUTURE ideas circulated recently)

- Safety vs. Security in Autonomous vehicle ecosystems, cooperative robots, etc.
- Safety-security co-engineering of (intelligent) systems
- Medical systems (assisted living, health informatics, applied biomedical engineering)
- Socio-tech. issues of security research and training (ethics, "ethical hacking", awareness)
- Economics of security and/or dependability
- Liability and dependability
- Foundations of Dep & Sec, Terminology 3.0
- Present and future of Dep & Sec research and its presence in relevant outlets
- Role of technologies in the Resilience of society
- Scaling down to <10nm: dependability challenges and opportunities
- Reliability of big data
- Reliability of forensic processes
- Use of machine learning for accidental and malicious error detection
- Electronic voting
- System Engineering for dependability and security

Members please consider organizing a workshop, even if not the next, it's good to have a few lined-up!
You may do it with the assistance of non-member colleagues.
Please contact me (PJV)

AOB?