

86<sup>th</sup> IFIP WG 10.4 Meeting  
Brisbane, Australia  
June 27 — 30, 2024

Business Meeting



# 86<sup>th</sup> WG Meeting – Participants

- 36 participants
  - Asia: 6
  - Europe: 10
  - North America: 7
  - Middle East: 3
  - Oceania: 10
- 11 members
- 25 guests

**Thanks everyone!**

# Agenda

- DSN 2025, DSN 2026
  - Related Conferences
  - JCL Award 2024
  - WG Meetings
  - Virtual Workshops
- 
- Second part - restricted to members of the WG!

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## DSN 2025 Naples, Italy

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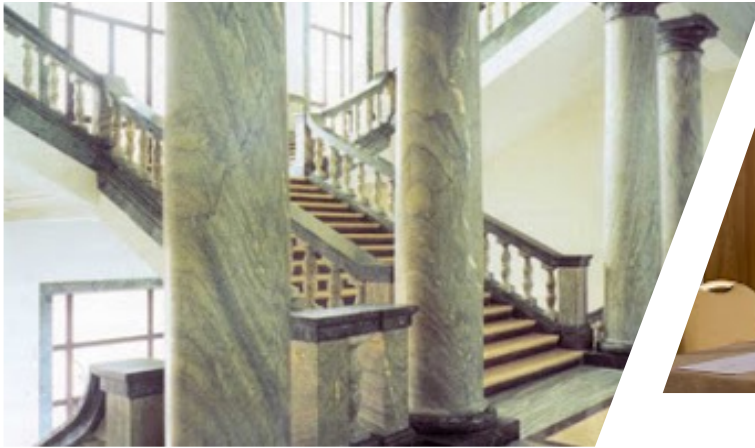
- *Domenico Cotroneo,*
- *Marcello Cinque,*
- *Univ. di Napoli Federico II*





# Dates and travel

- 23-26 June 2025
- Many flight options to Naples International Airport through New York, Dubai, Rome, London, Paris, Munich, Amsterdam, and many others
- June is summer in Italy, with sunshine and warm weather
  - bring the swimming suit!



## Venue: Conference Center Federico II

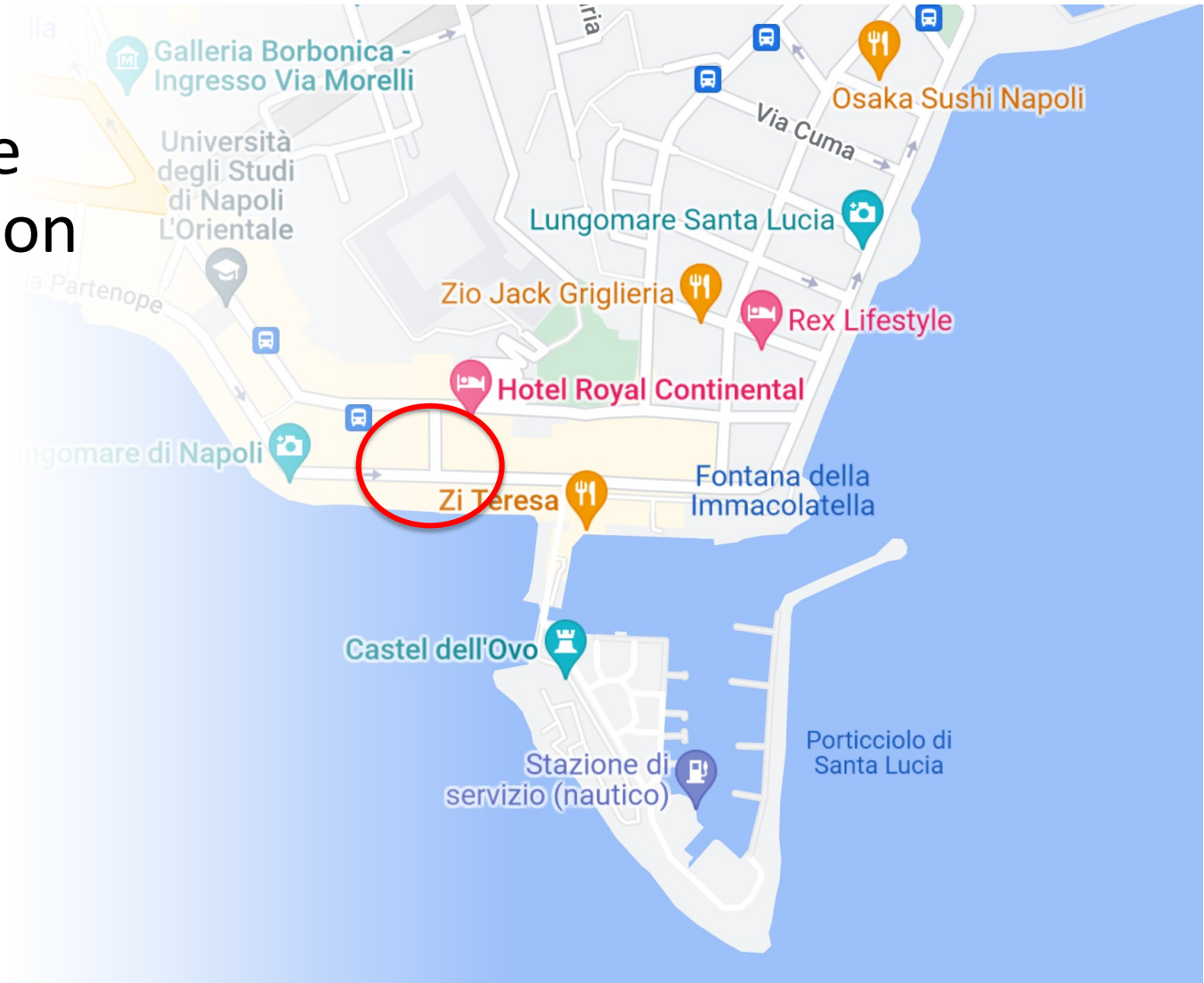


## Lunch & Breaks





# Conference Center location





View from the conference center

Places to visit near by...

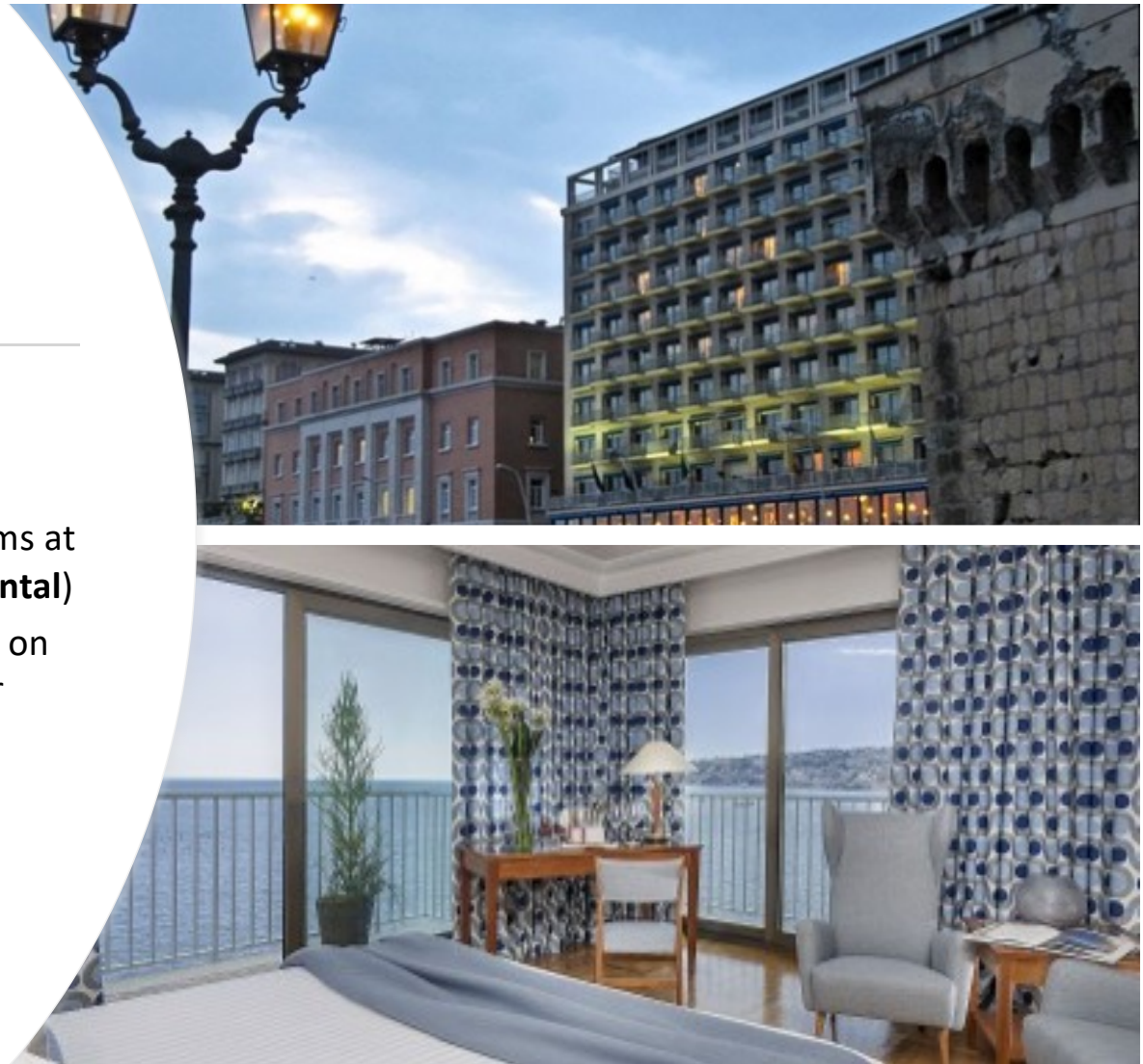


Excursion and Banquet



## Hotel Booking

- June is high holiday season in Naples
- Hotel occupancy nears 100%
- We have pre-booked a number of rooms at the Conference's Hotel (**Royal Continental**)
- Info to book the hotel will be available on the website before the end of the year
- We recommend to book your room well in advance!



See you next year in Napoli!





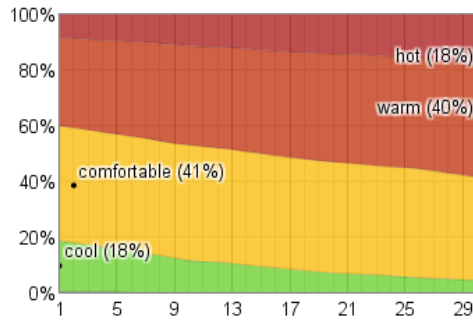
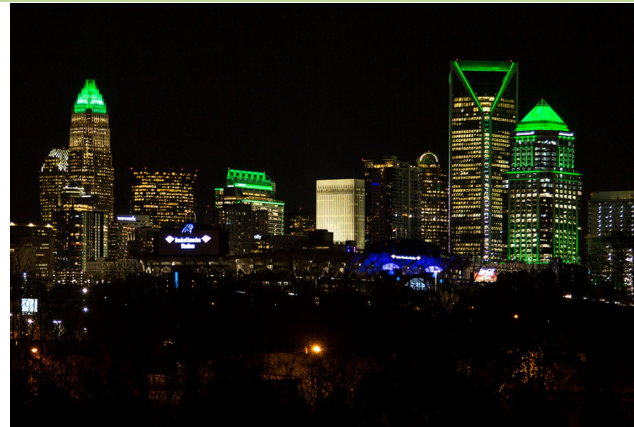
# DSN 2026

Bojan Cukic

College of Computing and Informatics  
University of North Carolina at Charlotte

# Facts about Charlotte, NC

Large (1M city, 2.6M region)  
 2<sup>nd</sup> banking center in US  
 Arts, museums, sports scene  
 Airport hub



UNIVERSITY OF NORTH CAROLINA  
**CHARLOTTE**  
 COLLEGE OF COMPUTING AND INFORMATICS  
 Office of the Dean

June  
 weather

## The Charlotte Region's FORTUNE 500

- 18 Bank of America
- 49 Lowe's
- 114 Honeywell
- 124 Nucor
- 132 Truist
- 148 Duke Energy
- 296 Sonic Automotive
- 412 Albemarle



## The Charlotte Region's FORTUNE 1000

- 502 Domtar
- 503 CommScope Holding
- 514 Ingersoll Rand
- 532 Coca-Cola Consolidated
- 603 Sealed Air
- 678 JELD-WEN Holding
- 734 Brighthouse Financial
- 751 Dentsply Sirona
- 760 RXO
- 919 Curtiss-Wright





# The University of North Carolina at Charlotte



- Urban research (R1) university
- 30,000+ students, 170 bachelor's, master's and doctoral programs





# DSN proposal - Background

- Organizational experience:

- ISSRE 2022
- SRDS 2024
- ISADS 2025



- [Annual Charlotte Cyber Security Symposium](#)

- 700+ attendees



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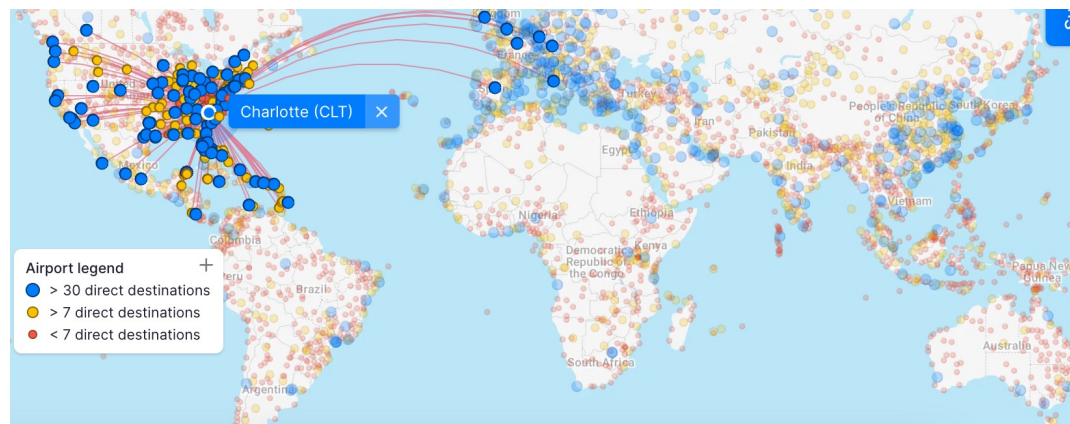


# Charlotte - Transportation

- Charlotte Douglas Airport
  - 7<sup>th</sup>-busiest in the world
    - 539,066 takeoffs and landings
    - 53+ million passengers (top 20)
    - 144 US and 44 international destinations



- Light rail connects UNC Charlotte Campus to Uptown



# Organization

- Option 1 – main campus:
  - UNC Charlotte Marriott Hotel and Conference Center
  - Fully utilize the CLT campus
  - 30+ nearby hotels
- Local, option 2
  - UNC Charlotte Center City
    - Largest room for ~250?
    - Walking everywhere
- Banquet: NASCAR Hall of Fame
- Tour: Mint/Bechtler Museums



# Summary

- Charlotte is easy to reach, safe and pleasant city.
  - Strive to organize a moderately priced event
- Significant experience of the organizers
- Support from UNC Charlotte
  - Will try to host the event on campus
  - College of Computing, new positions in trustworthy AI
  - Conference organization support
- ...and if you extend your trip, you may see a FIFA World Cup game or two!!!

# DSN 2027

- Three proposals!
- Berlin
- Beijing
- Shanghai

# Related Conferences

- ISSRE 2024
  - Tsukuba, Japan
  - October 28-31
- EDCC 2025
  - Lisbon, Portugal
  - April 8-11
- SAFECOMP 2024
  - Florence, Italy
  - Sept. 17-20
- PRDC 2024
  - Osaka, Japan
  - Nov. 13-15, 2024
- LADC 2024
  - Recife, PE, Brazil
  - Nov 26-29<sup>th</sup>
- SRDS 2024
  - Charlotte, NC, US
  - Sept 30<sup>th</sup> – Oct. 3<sup>rd</sup>



# JCL Award 2024

- Chair:
  - Chair: António Casimiro, University of Lisboa, PT
- Members:
  - Doug Blough, Georgia Tech, USA
  - Andrea Ceccarelli, University of Florence, IT
  - Ilir Gashi, City, University of London, UK
  - Nobuyasu Kanekawa, Hitachi, Ltd., JP
  - Nuno Neves, University of Lisboa, PT
  - Wilfried Steiner, TTTech, AT
  - Jiangshan Yu, University of Sydney, AU
- 7 papers nominated

# Winner of the 2024 JCL Award

## **A methodology for detection and estimation of software aging**

S. Garg, A. van Moorsel, K. Vaidyanathan and K. S. Trivedi

9th Intl Symp. on Software Reliability Engineering (ISSRE), Paderborn, Germany, 1998, pp. 283-292, doi: 10.1109/ISSRE.1998.730892

*... the first paper to monitor executing software and statistically analyze the collected data to predict the time to exhaustion of various operating system resources and ultimately to quantify and estimate software aging. The paper had a significant impact on the academic community (400+ citations) and was pioneer in proposing a methodology to measure software aging and rigorous mathematical techniques to analyze aging effects. The proposed methods had a strong impact in industry, namely catching the attention of researchers at IBM who took up on them and implemented aging detection and software rejuvenation in the IBM X-Series systems...*

# Winner of the 2024 JCL Award

## Flipping bits in memory without accessing them: An experimental study of DRAM disturbance errors

Y. Kim, R. Daly, J. Kim, C. Fallin, J. H. Lee, D. Lee, C. Wilkerson, K. Lai and **Onur Mutlu**  
ACM/IEEE 41st Intl Symp. on Computer Architecture (ISCA), Minneapolis, MN, USA, 2014, pp. 361-372, doi: 10.1109/ISCA.2014.6853210

*... the first paper to introduce, demonstrate, analyze, and propose solutions to DRAM row disturbance errors, later known as Rowhammer. The solution proposed in the paper, PARA (Probabilistic Adjacent Row Activation), was incorporated by Intel and other CPU vendors, and is still one of main ways to fix Rowhammer. It took a while for the problem to be recognized by DRAM vendors, but eventually it led to significant efforts and investment into fixing it ...*

# WG Meetings: Locations & Organizers

- Winter 2025 – Praia do Forte, BA, Brazil
  - Catello Di Martino, Elias Duarte, Andrey Brito
- Summer 2025 – Naples, Italy (together with DSN 2025)
  - Domenico Cotroneo, Luigi Romano
- Winter 2026 – **looking for proposals**
- Summer 2026 – Charlotte, NC, US (together with DSN 2026)
  - Bojan Cukic

# IFIP WG10.4

BR

Winter 2025

Lelio Di Martino, Nokia Bell Labs  
Andrey Brito, University of Campina Grande  
Elias Duarte Jr, Federal University of Parana

NOKIA  
BELL  
LABS

An aerial photograph of Praia do Forte, Bahia, Brazil. The image shows a coastal town with a prominent white lighthouse on a cliffside overlooking the ocean. The beach is sandy and lined with palm trees and several buildings, including a large white structure with a curved roof. The water is a mix of green and blue, with waves breaking on the shore. A blue semi-transparent box is overlaid on the center of the image, containing text.

# Praia do Forte, Bahia, Brazil

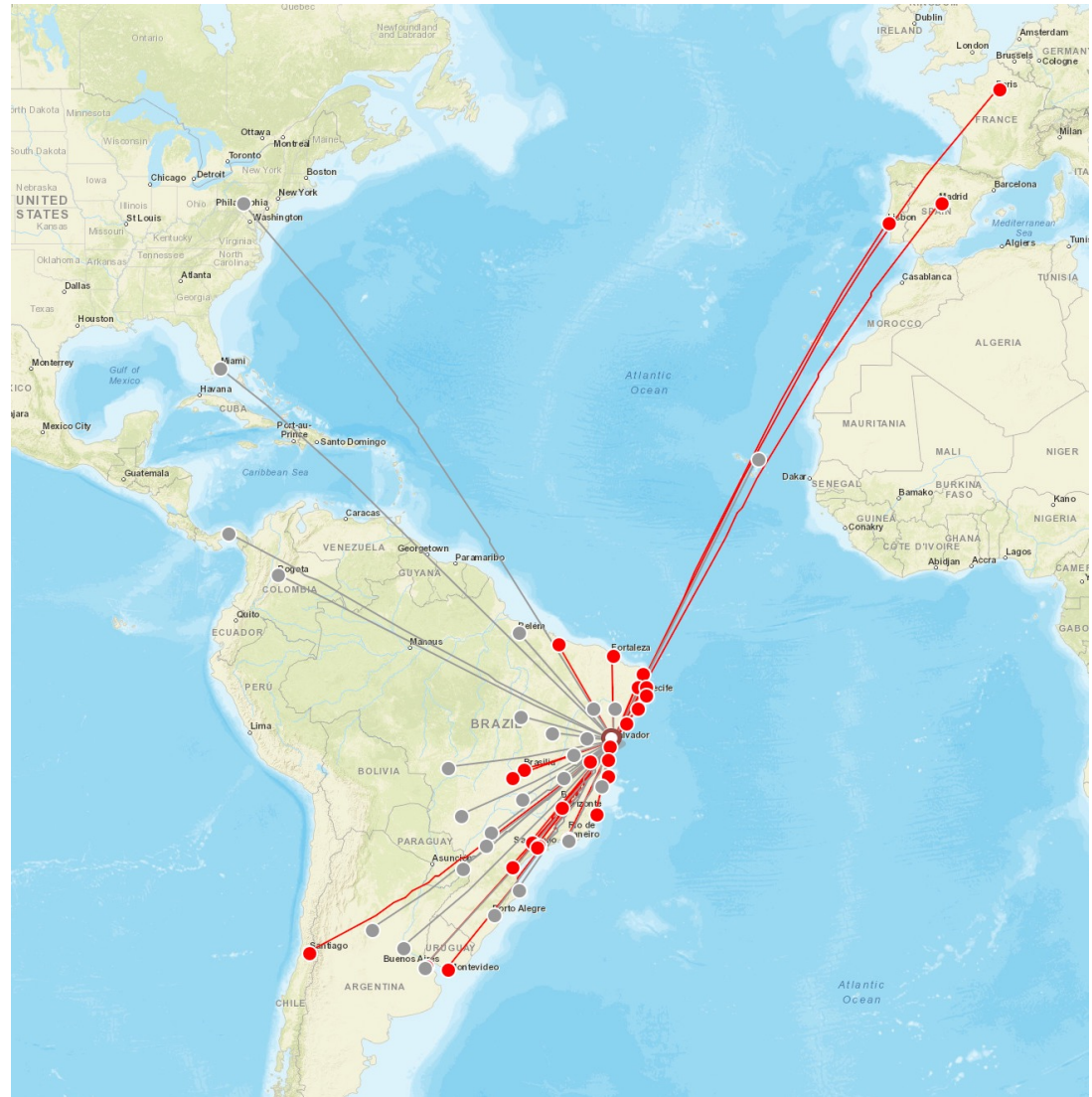
Dates:  
Feb 6 to Feb 10 2025

# Praia do Forte – Bahia, Brazil



# Salvador airport

Direct flights from US, Spain, Portugal, France, Colombia, Argentina, Chile, Paragu





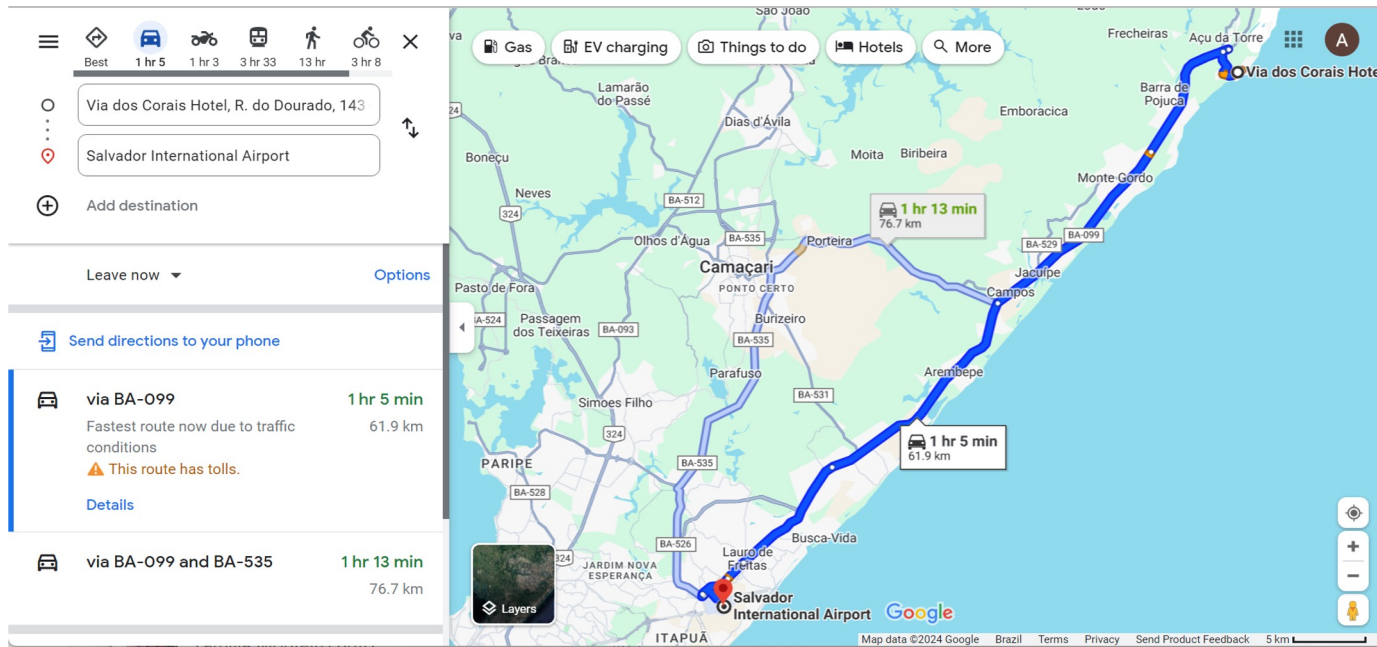
## Salvador Int. Airport (SSA, Bahia, Brazil)



Origin	Daily flights	Good as connection for travellers from
Brasília	6	North America
Buenos Aires	1	Asia and Oceania
Fortaleza	3	North America and Europe
Lisboa	1	Europe
Madrid	1	Europe
Recife	7	Europe
Rio de Janeiro	7	Worldwide
São Paulo (GRU)	20	Worldwide

## Airport SSA to Praia do Forte

Collective taxi service will be provided at specific times between Salvador and Praia do Forte **Included in the registration! (Wednesday and Thursday before the event)!**





The topic for IFIP Winter 2025

# Dependability challenges for future mission-critical systems

NOKIA  
BELL  
LABS

# Strong Industry presence

Inspire new use cases for the IFIP community

Brazilian representatives from international companies with requirements and results on mission-critical systems

Focus on challenges and use cases of mission-critical industry verticals



PETROBRAS



BOSCH



Mercedes-Benz


And potentially more

NOKIA



MAERSK

NOKIA  
BELL  
LABS



Example from Brazilian Iron ore mine

5 M\$/h

Loss due to communication failures

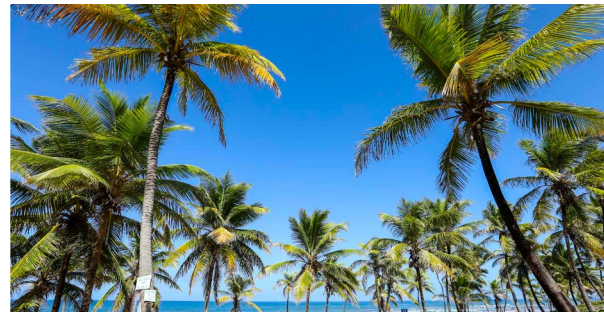
+20M\$/y

Loss due to unplanned events

# Location

## Excursion and Banquet

1. Vila de Santo Antonio
2. Leave at **13:30** via minivans (15-19 people) for a Visit to the "Vila de Santo Antonio"
  2. handicraft from Bahia
  3. Fruit, drinks, food, music and "Capoeira"
  4. bring your Havaianas!
3. **16:00** leave for the next stop: Garcia D'Avila's castle



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## Additional Tours

Booked independently

1 day excursion in Salvador

Buggy tour

Projeto Tamar

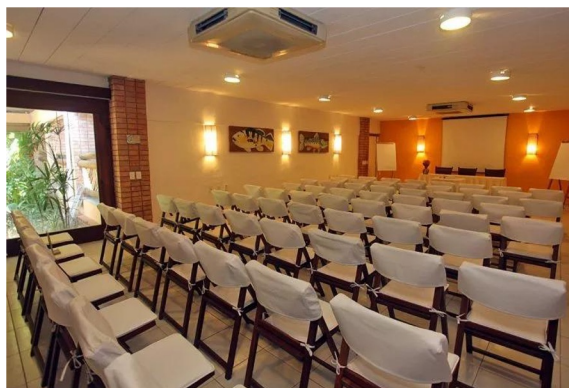
Whale Museum

Imbassaí beach



## Venue opt. 1: Hotel Via dos Corais

HOTEL  
*Via dos*  
**Corais**  
PRAIA DO FORTE



## Venue opt 1: Hotel Via dos Corais

HOTEL  
*Via dos*  
**Corais**  
PRAIA DO FORTE



## Venue opt. 2: Pousada Casa do Forte



## Venue opt. 2: Pousada Casa do I





Registration

**Cost estimates**

# Registration

- **Event fee includes**

- Meeting room and coffee breaks
- Social excursion
- Banquet (Saturday)
- Welcome cocktail (Friday)
- Lunch (Saturday & Sunday)

- **Accompanying person fee includes**

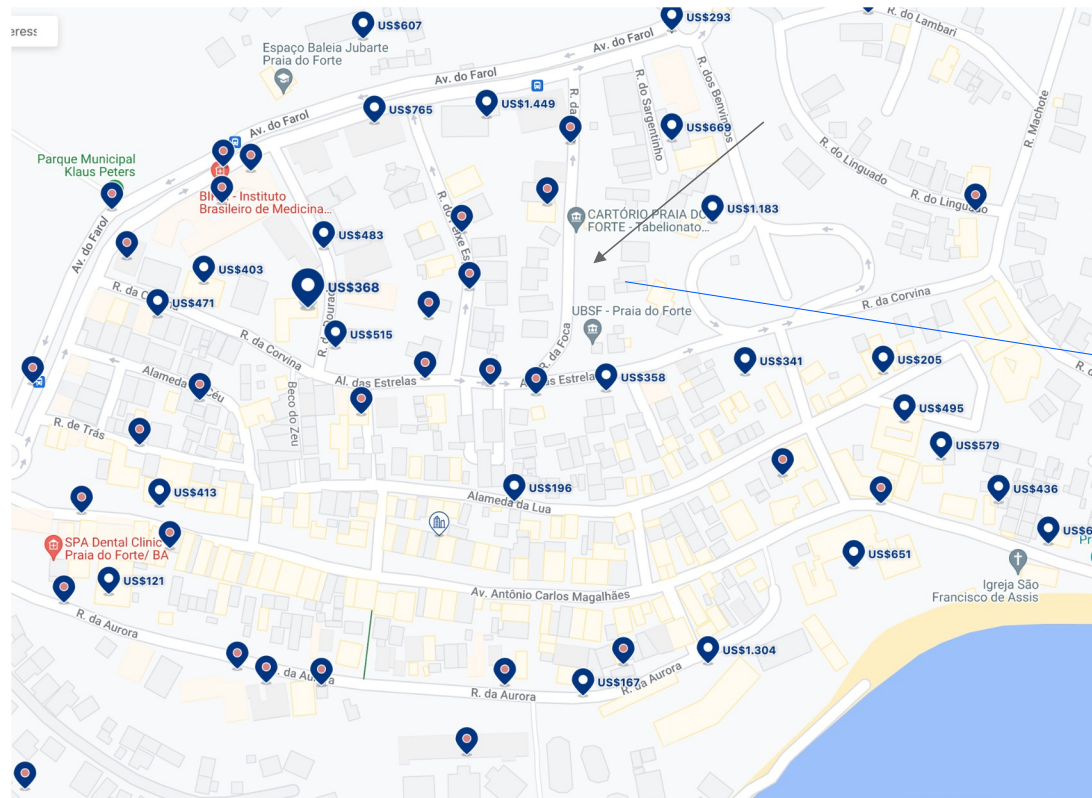
- Banquet dinner
- Excursion
- lunches (Saturday & Sunday)
- Welcome cocktail (Friday)

Tentative values \*

- **525Eur + 20% VAT**
- **100Eur** accompanying person
  - **Round trip transportation** from the SSA airport included with a group shuttle for IFIP at given hours on **Tuesday and Wednesday and Thursday** before the workshop
  - **Pre-negotiated certified dedicated driver** for up to 4 people +100\$ (round trip)
- **60-160Eur average daily rate** for 70% of the hotels and "pousadas" (booking 8,7+ rating) – all with amazing breakfast and afternoon tea
- **Discount code** for a block of rooms in the meeting hotel
- There are many excellent restaurants in the neighborhood.

Feb is Very high season: booking to be finalized by Nov 1<sup>st</sup> 2024

# Pousadas in less than 5 min walk



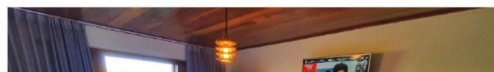
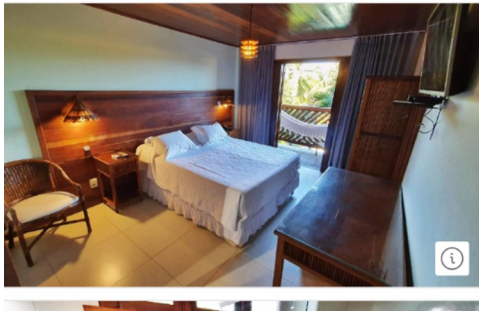
300m to the beach



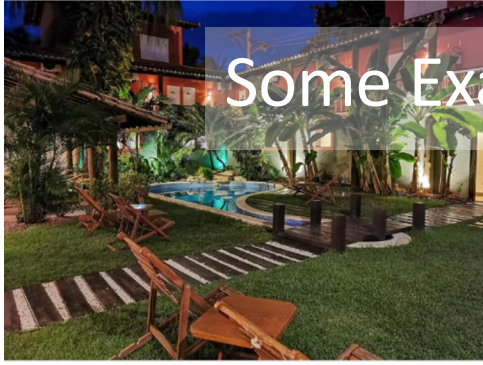
Some Examples...



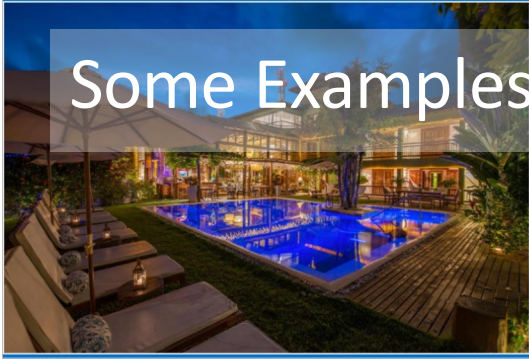
Some Examples...



Some Examples...



Some Examples...



See you in Praia do Forte, Bahia, Brazil?



# IFIP WG 10.4 Summer 2025 Naples, Italy

Domenico Cotroneo

IFIP WG10.4 Meeting, June 2024

# IFIP WG 10.4 Winter 2026

Looking for proposals!

# IFIP WG 10.4 Summer 2026 Charlotte, NC, US

Bojan Cukic

IFIP WG10.4 Meeting, June 2024



# Virtual Workshops 2023

- Spring 2023 – May 4<sup>th</sup>
  - Organized by Marcus Voelp, University of Luxemburg, Luxemburg
  - Two talks:
    - Wolfgang Kunz (Rheinland-Pfälzische Technische Universität, Germany)
    - Thomas Mikolajick (TU Dresden, Germany)
  - > 25 attendees
- Fall 2023 – Nov. 8<sup>th</sup>
  - Organized by Andrea Ceccarelli, University of Florence, Italy
  - Two talks:
    - Isabella Ferrari (University of Studies of Modena and Reggio Emilia, Italy)
    - Veronica Palladini and Rolando Poggi (University of Modena and Reggio Emilia, Italy)
  - ~40 attendees

# Virtual Workshops 2024

- Spring 2024 – April / May CANCELLED!
- Fall 2024 – October / November
- Looking for volunteers!

# Communication and Outreach

Andrea Ceccarelli

IFIP WG10.4 Meeting, June 2024

# Members

- Homa Alemzadeh
- Antonio Casimiro
- Andrea Ceccarelli (chair)
- Marcus Völp
- Jiangshan Yu

# Proposed actions

Find initiatives that could further increase visibility of the IFIP group. Also, it is beneficial if there is a direct participation of as many group members as possible.

Two initial proposal in this direction:

- IFIP WG10.4 google scholar
  - Periodically collect & post initiatives from members on LinkedIn
- 
- Details in the next slides

# IFIP WG10.4 Google Scholar

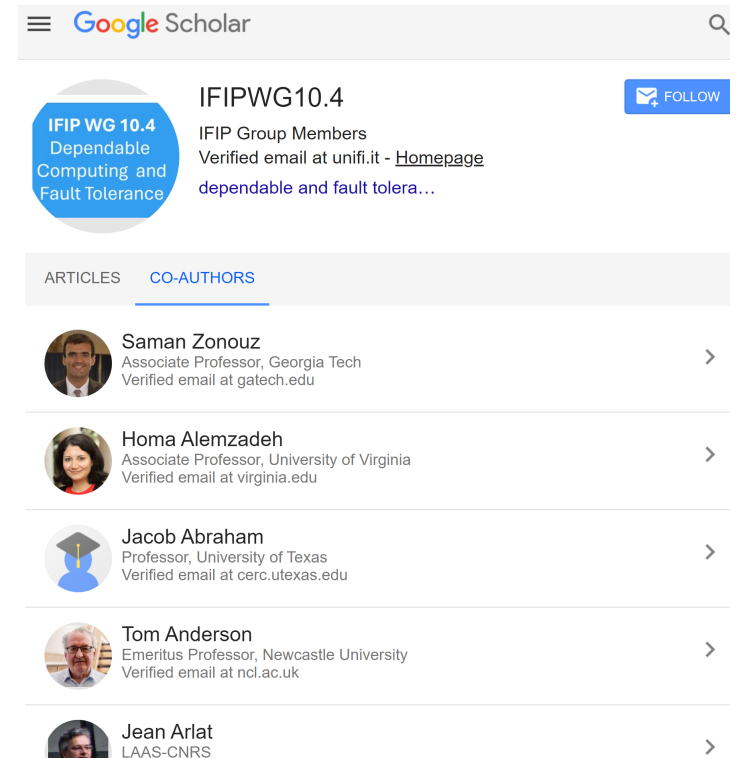
A collection of our google scholar profiles

**Not searchable** → to find it, you need the link, that, e.g., can be placed on wg10.4 website or LinkedIn

Unfortunately, cannot show all our papers and statistics (there is a limit to 3000 papers)

But: 32 members without G. Scholar account (or was not found)

[Link to google scholar profile](#)



The screenshot shows the Google Scholar profile for IFIPWG10.4. The profile includes a header with the group name, a 'FOLLOW' button, and a description: 'IFIP Group Members Verified email at unifi.it - Homepage dependable and fault tolera...'. Below the header are two tabs: 'ARTICLES' and 'CO-AUTHORS'. The 'CO-AUTHORS' tab is active, displaying a list of five authors with their names, titles, and affiliations, each accompanied by a profile picture and a right-pointing arrow.

Author	Title	Affiliation
Saman Zonouz	Associate Professor	Georgia Tech
Homa Alemzadeh	Associate Professor	University of Virginia
Jacob Abraham	Professor	University of Texas
Tom Anderson	Emeritus Professor	Newcastle University
Jean Ariat		LAAS-CNRS

# Periodically collect & post initiatives from members on LinkedIn

Promote usage of LinkedIn, which seems the most promising instrument to increase «online visibility».

In the last year, the only posts are announcements of meetings.

Proposal:

- Periodically post information on members' activities
- Making group members responsible to contribute
  - We can prepare a google form that members can fill, on topics like: selected publications, new projects, awards, open positions, events, ? (suggestions welcome)
  - Once per month, the information will be posted on the linkedin page
  - No selection (unless blatantly out-of-context)

# Example of the google form

Would look like something like this

<https://docs.google.com/forms/d/e/1FAIpQLSf8Zw9Sj6O8EGeHUvobps5-wDFkkLdISIVKHiM57GcKZR-rEQ/viewform>

The screenshot shows the top part of a Google Form. At the top is a blue header with the IFIP logo and the text "Dependable Computing and Fault Tolerance" and "IFIP Working Group 10.4 on Dependable Computing and Fault Tolerance". Below the header is the form title "IFIP WG10.4 activity reporting form" and a note "To be published monthly on the Working Group LinkedIn page". The form is published by "andrea.ceccarelli@unifi.it" with a "Cambia account" link. A red asterisk indicates a mandatory question: "\* Indica una domanda obbligatoria". The first question is "Email \*", with the prompt "Il tuo indirizzo email" and a text input field. The second question is "Activity or event title \*", with the prompt "La tua risposta" and a text input field. The third question is "Involved member names \*", with the prompt "La tua risposta" and a text input field.

The screenshot shows the bottom part of the Google Form. The fourth question is "Date (or start date) \*", with the prompt "Data" and a date input field labeled "gg/mm/aaaa". The fifth question is "End date", with the prompt "Data" and a date input field labeled "gg/mm/aaaa". The sixth question is "Description \*", with the prompt "La tua risposta" and a text input field. The seventh question is "Additional information", with the prompt "La tua risposta" and a text input field.



# Comments?

Please let us know comments and suggestions!

Second part

Restricted to members of the WG!

