

Keynote III

Topic

“User-centric Privacy & Security in the Networked World”

Presenter

Prof. Silvia Giordano

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Abstract

The Networked World is enabling a new service-rich world. However, it is also opening new paths for data leakage, data breach, and data phishing. We need to take a fresh look at the data privacy space by considering a user-centric approach. It has to be user-centric by considering user behaviours and the user context in order to teach them to improve security and privacy, and realize so privacy preserving data collection and processing. It has also to increase users awareness, data transparency and control. Users need to be informed about the data that are being collected in a user-friendly manner, and must have the option to oppose to them. This further generate a problem of Quality-of-Service, as in many scenarios there is a trade-off between guaranteeing privacy and performance. We are going to analyze some scenarios and possible solutions, and discuss how this can impact on our society.

Bio



Prof. Silvia Giordano holds a PhD from EPFL, Switzerland. She is currently the head of the Networking Lab (NetLab) in the Institute of System for Informatics and Networking (ISIN), responsible for the Digital Complex Systems area and research direction member at the University of Applied Science and Arts - SUPSI in Ticino, Switzerland. Since October 2001, she is an associate researcher at CNR, Pisa. Since 2018 she is ACM Distinguished Members Committee. In 2017 she received the Stars in Computer Networking and Communications of ACM. In 2015, she received the 1000 Talents of Tianjin Municipality. In 2014 she was awarded ACM Distinguished Scientist and became Distinguished professor of the University of Tianjin. In 2013, she became ACM Distinguished Speaker. She is co-editor of the book (IEEE-Wiley 2004), and a new edition, with title (IEEE-Wiley 2013). Her main research interests are Complex and Social Networking, Wireless and Mobile Ad Hoc Networks, Opportunistic Computing and Networking, Human Mobility, Pervasive Computing and Networking, Quality of Service and Traffic Control. She has published extensively on journals, magazines and conferences in the areas of quality of services, traffic control, wireless and mobile ad hoc networks, and her H-Index is 39. She is series editor of several important publications in her areas of interest. She is in the organization of the major conferences in her areas of interest and is co-founder/steering committee member of several important international events and is/was on the executive committee and TCP of the most relevant international conferences. She is a senior member of ACM, IEEE Computer Society, and IFIP WG 6.8. She is in the Board of the ACM N2Women.

IFIP Networking 2019
Warsaw, Poland, Warsaw University of Technology

Program-at-a-Glance

DAY 1 Monday May 20, 2019		DAY 2 Tuesday May 21, 2019		DAY 3 Wednesday May 22, 2019	
Time		Time		Time	
08:00	Registration at CZITT PW	08:30	Registration at CZITT PW	09:30	Registration at CZITT PW
09:00	Welcoming General Chair, TPC Co-chairs	09:00	Keynote II	10:00	Keynote III
09:30	Keynote I	10:00	Coffee Break	11:00	Early Lunch Break
10:30	Coffee Break	10:30	Session 4 Network and Traffic Engineering	12:00	Session 7 Wireless Networks
11:00	Session 1 Datacenter Networks and Transport	12:35	Lunch Break	14:05	End of Conference
13:05	Lunch Break	13:35	Session 5 SDN and NFV		
14:05	Session 2 5G Networks	15:15	Coffee Break		
15:45	Coffee Break	15:15	Poster Session		
16:15	Session 3 Measurement and Modelling	16:45	Session 6 Security		
18:20	End of Day 1 Sessions	18:25	End of Day 2 Sessions		
		20:00	Social Event		

IFIP Networking 2019 Conference Program

DAY 1
Monday May 20, 2019

08:00	Registration at CZiTT PW Navigation: https://goo.gl/maps/oZfeHfPtx4XoUwzq9 Room: Hall at Room 4.01	
09:00	Welcoming General Chair TPC Co-chairs Room: 4.05	
09:30	<p style="text-align: center;">Keynote I</p> <p style="text-align: center;">Title: New Research Directions in Routing: Beyond Sequence Numbering, Routing Modalities, and Destination-Based Routing Table</p> <p style="text-align: center;">Author: J.J. Garcia-Luna-Aceves</p> Room: 4.05	
10:30	Coffee break Room: Hall at Room 4.05	
11:00	<p>Session 1</p> <p>Datacenter Networks and Transport</p> <p>Session Chair: Alex Liu</p> Room: 4.05	
	Title	Authors
	<i>AMP: An Adaptive Multipath TCP for Data Center Networks</i>	Morteza Kheirkhah Sabetghadam (University College London, United Kingdom (Great Britain)); Myungjin Lee (University of Edinburgh, United Kingdom (Great Britain))
	<i>On The Impact of the Network Hypervisor on Virtual Network Performance</i>	Stefan Schmid (University of Vienna, Austria); Andreas Blenk, Arsany Basta and Wolfgang Kellerer (Technische Universität München, Germany)
	<i>Beyond socket options making the Linux TCP stack truly extensible</i>	Viet-Hoang Tran (Université Catholique de Louvain, Belgium); Olivier Bonaventure (Université catholique de Louvain, Belgium)
	<i>Efficient Non-Segregated Routing for Reconfigurable Demand-Aware Networks</i>	Thomas Fenz, Klaus-Tycho Foerster, Stefan Schmid and Anaïs Villedieu (University of Vienna, Austria)

	<i>Dynamic Property Enforcement in Programmable Data Planes</i>	Miguel Neves (Federal University of Rio Grande do Sul (UFRGS), Brazil); Bradley Huffaker (University of California San Diego, USA); Kirill Levchenko (University of Illinois Urbana-Champaign, USA); Marinho P. Barcellos (Federal University of Rio Grande do Sul, Brazil)
13:05	Lunch Break Room: Hall at Room 4.05	
14:05	<p style="text-align: center;">Session 2 5G Networks</p> <p style="text-align: center;">Session Chair: Sławomir Kukliński</p> <p style="text-align: center;">Room: 4.05</p>	
	Title	Authors
	<i>Analytical Study of License-Assisted Access in 5G Networks</i>	Polina Kutsevol (Moscow Institute of Physics and Technology, Russia); Vyacheslav Loginov, Evgeny Khorov and Andrey Lyakhov (IITP RAS, Russia)
	<i>Composing 5G Network Slices by Co-locating VNFs in μslices</i>	Matteo Pozza (University of Helsinki, Finland); Akanksha Patel (Indian Institute of Technology Bombay, India); Ashwin Rao (University of Helsinki, Finland); Hannu Flinck (Nokia Bell Labs, Finland); Sasu Tarkoma (University of Helsinki, Finland)
	<i>Full Downlink Channel Reconstruction using Incomplete Uplink Channel Measurements in Massive MIMO networks</i>	Aleksei Fedorov (University of Otago, New Zealand); Haibo Zhang (Universtiy of Otago, New Zealand); Galina Sidorenko (University of Otago, New Zealand); Bo Yang (Shanghai Jiao Tong University, P.R. China)
	<i>TCP BBR for Ultra-Low Latency Networking: Challenges, Analysis, and Solutions</i>	Rajeev Kumar and Athanasios Koutsaftis (New York University, USA); Gaurang Naik (Virginia Tech, USA); Pei Liu and Yong Liu (New York University, USA); Shivendra Panwar (New York University & Tandon School of Engineering, USA)
15:45	Coffee break Room: Hall at Room 4.05	
16:15	<p style="text-align: center;">Session 3 Measurement and Modelling</p> <p style="text-align: center;">Session Chair: Rong Zheng</p> <p style="text-align: center;">Room: 4.05</p>	
	Title	Authors

	<i>A Black-box Method for Accelerating Measurement Algorithms with Accuracy Guarantees</i>	Ran Ben Basat (Harvard University, USA); Gil Einziger (Ben-Gurion University Of The Negev, Israel); Marcelo Caggiani Luizelli (Federal University of Pampa, Brazil); Erez Waisbard (Nokia Bell Labs, Israel)
	<i>Advancing User Quality of Experience in 360-degree Video Streaming</i>	Sohee Park (Stony Brook University, USA); Arani Bhattacharya (Stony Brook University, USA & SUNY Korea, Korea); Zhibo Yang, Mallesham Dasari, Samir R. Das and Dimitris Samaras (Stony Brook University, USA)
	<i>Balancing Performance Characteristics of Hierarchical Heavy Hitters</i>	Hauke Heseding and Johannes Glöckle (KIT, Germany); Robert Bauer (Karlsruhe Institute of Technology, Germany); Martina Zitterbart (KIT, Germany)
	<i>From Network Traffic Measurements to QoE for Internet Video</i>	Muhammad Jawad Khokhar, Thibaut Ehlinger and Chadi Barakat (INRIA Sophia Antipolis, France)
	<i>Towards Tile Based Distribution Simulation in Immersive Video Streaming</i>	Dongbiao He (Tsinghua University, P.R. China); Cedric Westphal (Huawei Innovation Center, USA); Jinlei Jiang and Guangwen Yang (Tsinghua University, P.R. China); J. J. Garcia-Luna-Aceves (PARC, USA)
18:20	End of Day 1 Sessions	

DAY 2
Tuesday May 21, 2019

08:30	Registration at CZITT PW Navigation: https://goo.gl/maps/oZfeHfPtx4XoUwzq9 Room: Hall at Room 4.01
09:00	Keynote II Title: Toward Self-* Networks" Author: Stefan Schmid Room: 4.05
10:00	Coffee break Room: Hall at Room 4.05
10:30	Session 4 Network and Traffic Engineering Session Chair: Zbigniew Dziong

	Room: 4.05	
	Title	Authors
	<i>A Distributed Algorithm for Throughput Optimal Routing in Overlay Networks</i>	Anurag Rai and Rahul Singh (Massachusetts Institute of Technology, USA); Eytan Modiano (MIT, USA)
	<i>DeepMPLS Fast Analysis of MPLS Configurations using Deep Learning</i>	Fabien Geyer (Technical University of Munich, Germany); Stefan Schmid (University of Vienna, Austria)
	<i>Spectrum Management in Elastic Optical Networks Perspectives of Topology, Traffic and Routing</i>	Haitao Wu and Fen Zhou (University of Avignon, France); Zuqing Zhu (University of Science and Technology of China, P.R. China); Yaojun Chen (Nanjing University, P.R. China)
	<i>QUIC-FEC Bringing the benefits of Forward Erasure Correction to QUIC</i>	François Michel (UCLouvain, Belgium); Quentin De Coninck (Universite Catholique de Louvain, Belgium); Olivier Bonaventure (Université catholique de Louvain, Belgium)
	<i>Triptych Multi-objective Optimisation of Service Deployment Costs, Application Delay and Bandwidth Usage</i>	Miguel Rocha (University of Minho, Portugal); Truong Khoa Phan, Joao Reis and David Griffin (University College London, United Kingdom (Great Britain)); Miguel Rio (UCL, United Kingdom (Great Britain))
12:35	Lunch Break Room: Hall at Room 4.05	
13:35	Session 5 SDN and NFV Session Chair: Jordi Domingo-Pascual Room: 4.05	
	Title	Authors
	<i>Blockchain-based Reverse Auction for Infrastructure Supply in Virtual Network Functions-as-a-Service</i>	Muriel Franco (University of Zurich, Switzerland); Eder John Scheid (University of Zürich, Switzerland); Lisandro Z Granville (Federal University of Rio Grande do Sul, Brazil); Burkhard Stiller (University of Zürich, Switzerland)
	<i>Latency and Consistent Flow Migration Relax for Lossless Updates</i>	Klaus-Tycho Foerster (University of Vienna, Austria); Laurent Vanbever and Roger Wattenhofer (ETH Zurich, Switzerland)
	<i>Let there be Chaining How to Augment your IGP to Chain your Services</i>	Adrien Wion and Mathieu Bouet (Thales, France); Luigi Iannone (Telecom ParisTech, France); Vania Conan (Thales Communications & Security, France)

	<i>On Polynomial-Time Congestion-Free Software-Defined Network Updates</i>	Stefan Schmid and Mahmoud Parham (University of Vienna, Austria); Saeed Akhoondian Amiri (MPI, Saarland, Germany); Sebastian Wiederrecht (TU Berlin, Germany); Szymon Dudycz (University of Wroclaw, Poland)
15:15	Coffee break Room: Hall at Room 4.05	
15:15	Poster Session Room: 4.04	
16:45	Session 6 Security Session Chair: Peter Babarczy Room: 4.05	
	Title	Authors
	<i>A Mathematical Measure for Flexibility in Communication Networks</i>	Markus Klügel (Airbus, Germany); Mu He and Wolfgang Kellerer (Technische Universität München, Germany); Péter Babarczy (Budapest University of Technology and Economics, Hungary & Technische Universität München, Germany)
	<i>Incentives for Stable Mining in Pay Per Last N Shares Pools</i>	Yevhen Zolotavkin and Julian Garcia (Monash University, Australia)
	<i>The Curious Case of Port 0</i>	Mark Luchs (TU Delft, The Netherlands); Christian Doerr (Delft University of Technology, The Netherlands)
	<i>The Risk of Successive Disasters A Blow-by-Blow Network Vulnerability Analysis</i>	Jorik Oostenbrink (TU Delft, The Netherlands); Fernando A. Kuipers (Delft University of Technology, The Netherlands)
18:25	End of Day 2 Sessions	
20:00	Social Event Place: "U Szwejka" Restaurant, plac Konstytucji 1, 00-647 Warszawa Navigation: https://goo.gl/maps/W3QSV6vLXWnsjRhW6	

DAY 3
Wednesday May 22, 2019

09:30	Registration at CZiTT PW Navigation: https://goo.gl/maps/oZfeHfPtx4XoUwzq9 Room: Hall at Room 4.01	
10:00	Keynote III Title: User-centric Privacy & Security in the Networked World Author: Silvia Giordano Room: 4.05	
11:00	Early Lunch Break Room: Hall at Room 4.05	
12:00	Session 7 Wireless Networks Session Chair: Krzysztof Szczypiorski Room: 4.05	
	Title	Authors
	<i>BeamSniff Enabling Seamless Communication under Mobility and Blockage in 60 GHz Networks</i>	Tianbo Gu (University of California Davis, USA); Zhicheng Yang, Debraj Basu and Prasant Mohapatra (University of California, Davis, USA)
	<i>Data Collection and Node Counting by Opportunistic Communication</i>	Tong Li (The Hong Kong University of Science and Technology, P.R. China); Sylvia T. Kouyoumdjieva and Gunnar Karlsson (KTH Royal Institute of Technology, Sweden); Pan Hui (Hong Kong University of Science and Technology & University of Helsinki, Hong Kong)
	<i>ICNLoWPAN – Named-Data Networking for Low Power IoT Networks</i>	Cenk Gündogan, Peter Kietzmann and Thomas C. Schmidt (Hamburg University of Applied Sciences, Germany); Matthias Wählisch (Freie Universität Berlin, Germany)
	<i>Privacy-Preserving MAXMIN Query Processing for WSN-as-a-Service</i>	Dai Hua (Nanjing University of Post and Telecommunications, P.R. China); Yan Ji (Nanjing University of Post and Telecommunication, P.R. China); Fu Xiao and Geng Yang (Nanjing University of Posts and Telecommunications, P.R. China); Xun Yi (RMIT

		University, Australia); Lei Chen (Nanjing University of Posts and Telecommunications, P.R. China)
	<i>LEMoNet Low Energy Wireless Sensor Network Design for Data Center Monitoring</i>	Mehdi Jafarizadeh, Chenhe Li and Jun Li (McMaster University, Canada); Ghada Badawy (RIM, Canada); Rong Zheng (McMaster University, Canada)
14:05	End of Conference	

IFIP Networking 2019	
Posters	
Poster Session is on DAY 2, Tuesday May 22, 2019	
Title	Authors with affiliation and country
<i>FFBquick: Fast Convergence to Fairness for Delay-bounded Congestion Controls</i>	Mario Hock, Roland Bless and Felix Neumeister (Karlsruhe Institute of Technology (KIT), Germany); Martina Zitterbart (KIT, Germany)
<i>On the Effectiveness of the PIT in Reducing Upstream Demand in an NDN Router</i>	Mahdieh Ahmadi (Sharif University of Technology, Iran); James Roberts (Telecom ParisTech, France); Emilio Leonardi (Politecnico di Torino, Italy); Ali Movaghar (Sharif University of Technology, Iran)
<i>Don't Interrupt Me When You Reconfigure my Service Function Chains</i>	Adrien Gausseran (Université Cote d'Azur, Inria, I3S, France); Andrea Tomassilli (Université Côte d'Azur, Inria, I3S, France); Frederic Giroire (CNRS, France); Joanna Moulhierac (University of Nice Sophia Antipolis, France)
<i>rQUIC: Integrating FEC with QUIC for Robust Wireless Communications</i>	Pablo Garrido (IK4-IKERLAN, Spain); Simone Ferlin (Ericsson Research, Sweden); Maria Isabel Sanchez Bueno (Independent, Norway); Ozgu Alay (Simula Metropolitan Center for Digital Engineering, Norway); Ramón Agüero (University of Cantabria, Spain)
<i>Fast and Reliable Alert Delivery in Wi-Fi HaLow Sensor Networks</i>	Evgeny Khorov, Andrey Lyakhov, Ivan Nasedkin and Ruslan Yusupov (IITP RAS, Russia)
<i>Persistent DNS connections for improved performance</i>	Baptiste Jonglez (Université Grenoble Alpes & LIG, France); Sinan Birbalta (Université Grenoble Alpes, France); Martin Heusse (Grenoble Informatics Laboratory & Grenoble INP, France)
<i>Minimizing Range Rules for Packet Filtering Using Double Mask Representation</i>	Ahmad Abboud (University of Lorraine, France); Abdelkader Lahmadi (INRIA Nancy Grand Est, France); Michael Rusinowitch (LORIA, France); Miguel Couceiro (University of Lorraine, France); Adel Bouhoula (Higher School of Communication of Tunis, University of Carthage, Tunisia)

<i>Design of Survivable SDN/NFV-enabled Networks with Bandwidth-optimal Failure Recovery</i>	Andrea Tomassilli (Université Côte d'Azur, Inria, I3S, France); Giuseppe Di Lena (Orange, Inria Sophia Antipolis, Université Côte d'Azur, France); Frederic Giroire (CNRS, France); Issam Tahiri (INRIA, France); Damien Saucez (Inria, France); Stephane Perennes (INRIA, France); Thierry Turletti (INRIA; Université Côte d'Azur, France); Rusland Sadykov (INRIA, France); Francois Vanderbeck (University of Bordeaux 1, France); Chidung Lac (Orange, France)
<i>Performance Study of the Constrained Application Protocol in Lossy Networks</i>	Nabil Makarem (Lebanese University, Lebanon & Sorbonne University, France); Wafaa Boudiab (Université Libanaise, Lebanon); Imad Mougharbel (Ecole de Technologie Supérieure, Canada & Université Libanaise, Lebanon); Naceur Malouch (UPMC Sorbonne Universités - LIP6/CNRS, France)
<i>Online adaptive sampling for network delay measurement via matrix completion</i>	Shuo Liu and Qiaoling Wang (Huawei Technologies Co., Ltd., P.R. China)
<i>A Distributed & Lightweight Framework to Secure IoT Networks Against Network Layer Attacks</i>	Raghav Venkatnarayan and Prasesh Adina (North Carolina State University, USA); Shakir Mahmood (National University of Sciences and Technology, Pakistan); Muhammad Shahzad (North Carolina State University, USA)
<i>A Minimally Disruptive Rule Update Approach in Software Defined Networking</i>	Diman Zad Tootaghaj (The Pennsylvania State University, USA); Stefan Achleitner (Pennsylvania State University, USA); Ting He (Penn State University, USA); Novella Bartolini (Sapienza University of Rome, Italy); Tom La Porta (Pennsylvania State University, USA)
<i>EFusion: Correcting Unreliable Labels with Expert Knowledge for Mobile Crowdsensing</i>	Jinghan Jiang, Kui Wu and Huan Wang (University of Victoria, Canada); Rong Zheng (McMaster University, Canada)
<i>Characterizing the Performance of WiFi in Dense IoT Deployments</i>	Anirudh Ganji, Griffin Page and Muhammad Shahzad (North Carolina State University, USA)
<i>A Novel Mechanism for Rewards Distribution in Pool Mining of Proof of Work</i>	Liu Keyang and Yukio Ohsawa (University of Tokyo, Japan)

IFIP Networking 2019 Venue and Travel Guidelines

IFIP Networking 2019 will take place in Warsaw, Poland at the Centre for Innovation and Technology Transfer Management of Warsaw University of Technology – CZIITT (CAS)

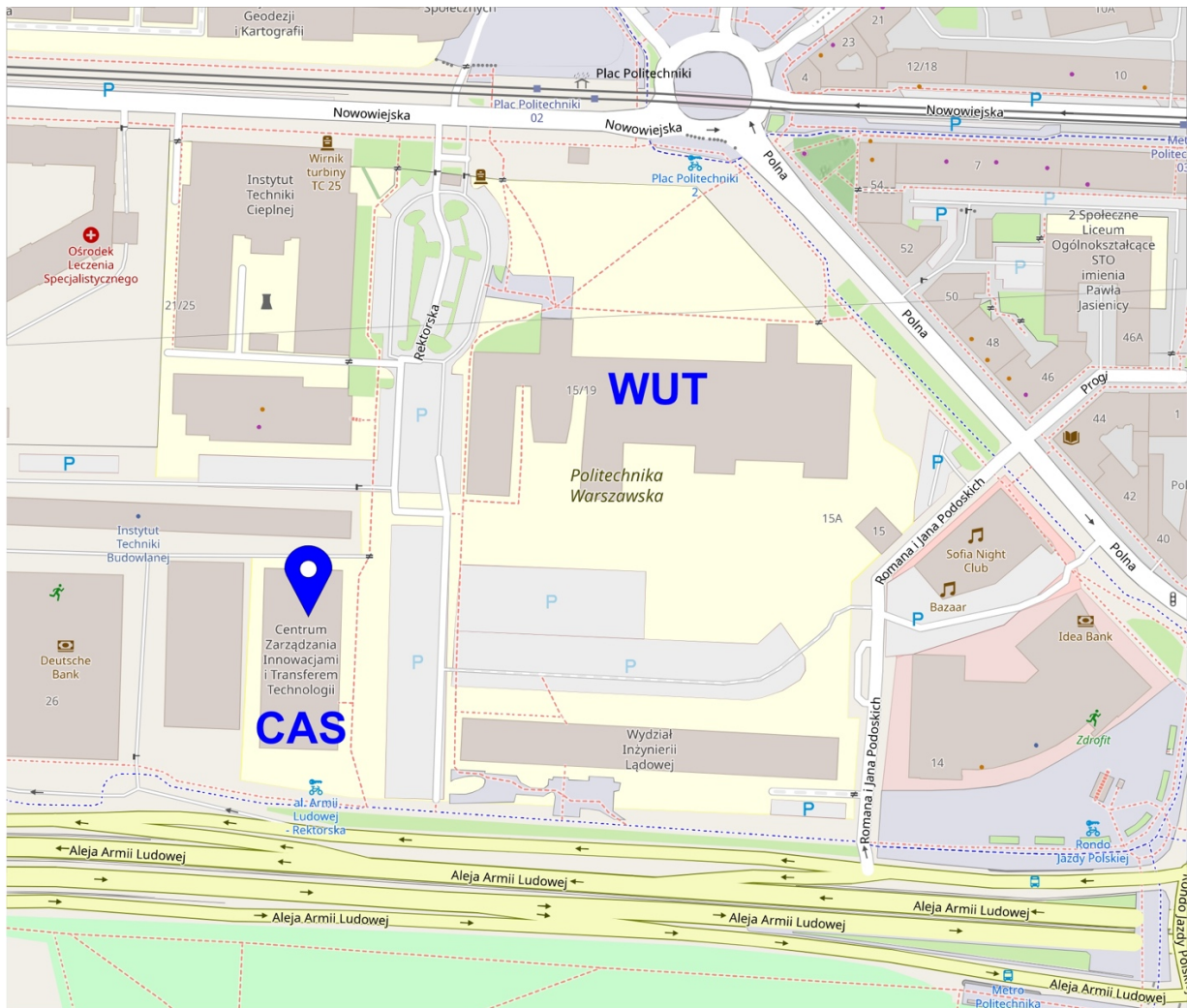
Address:
ul. Rektorska 4
00-614 Warszawa
Poland



GPS: 52.218003, 21.010267

Navigation:

<https://goo.gl/maps/oZfeHfPtx4XoUwzq9>



Main rooms of conference are 4.04 and 4.05 (4th Floor).

Directions

From the Warsaw Chopin Airport:

Means	Cost	Time
Taxi / Uber	From 20 PLN	~20 minutes
<p>Bus line 188</p> <p>Terminal Autokarowy 02, direction: Gołławek Wschodni → 15 stops → GUS 05 + 510m walk ENE</p>	<p>4.40 PLN (a single fare transfer ticket for journeys not exceeding 75 minutes)</p> <ul style="list-style-type: none"> - A 24-hour transit pass for public transportation in Warsaw (bilet dobowy, strefa 1) costs 15 PLN. - A 72-hour pass (bilet 3-dniowy, strefa 1) costs 36 PLN. <p>Tickets are available at ZTM vending machines and may need to be validated.</p>	~30 minutes
<p>Train line S3 + trolley line 15</p> <p>Lotnisko Chopina-Przyloty 01, direction: Wieliszew → 3 stops → Warszawa-Rakowiec 01, then PKP-Rakowiec 03, direction: Marymont-Potok → 11 stops → Pl. Politechniki 01 + 320m walk South</p>		

From the Central Railway Station (Warszawa Centralna):

Means	Cost	Time
Taxi / Uber	From 11 PLN	~10 minutes
<p>Trolley Line 10</p> <p>Dw. Centralny 09, direction: Wyścigi → 3 stops → Pl. Politechniki 01 + 320m walk South</p>	<p>4.40 PLN (a single fare transfer ticket for journeys not exceeding 75 minutes)</p> <ul style="list-style-type: none"> - A 24-hour transit pass for public transportation in Warsaw (bilet dobowy, strefa 1) costs 15 PLN. - A 72-hour pass (bilet 3-dniowy, strefa 1) costs 36 PLN. <p>Tickets are available at ZTM vending machines and may need to be validated.</p>	~10 minutes