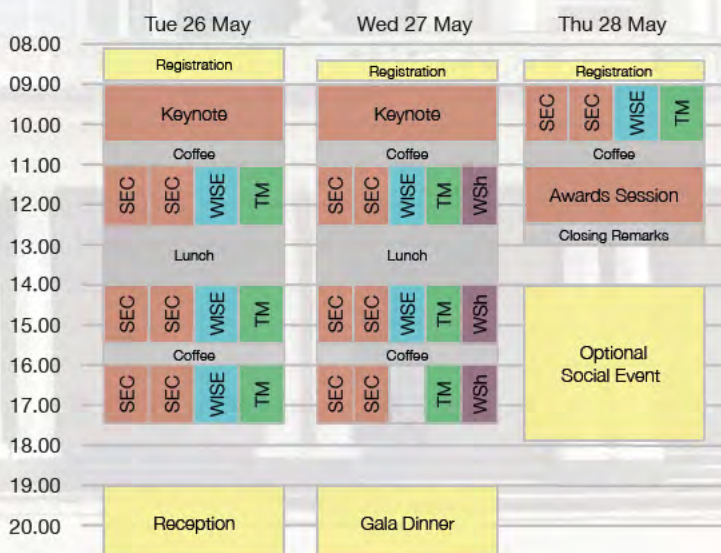


IFIP SEC 2015

International Conference

co-located with
IFIPTM, WISE9, Workshop on Assurance & Control and
Workshop on Information Security Management
at University of Hamburg



<https://ifipsec.org/2015/>

08:00	Registration	First Floor
09:00	IFIP SEC 2015 Opening Invited Talk: The SCION Next-generation Secure Internet Architecture – <i>Adrian Perrig (ETH Zürich, Switzerland)</i>	221W
10:30	Coffee Break	Ground Floor
11:00	Session 1a: IFIP SEC (Privacy I) O-PSI: Delegated Private Set Intersection on Outsourced Datasets – <i>Aydin Abadi, Sotirios Terzis, Changyu Dong</i> Flexible and Robust Privacy-Preserving Implicit Authentication – <i>Josep Domingo-Ferrer, Qianhong Wu, Alberto Blanco-Justicia</i> Towards Relations between the Hitting-Set Attack and the Statistical Disclosure Attack – <i>Dang Vinh Pham, Dogan Kesdogan</i>	121W
11:00	Session 1b: IFIP SEC (Web Security) Cache Timing Attacks revisited: efficient and repeatable browser history, OS and network sniffing – <i>Chetan Bansal, Sören Preibusch, Natasa Milic-Frayling</i> Enforcing Usage Constraints on Credentials for Web Applications – <i>Jinwei Hu, Heiko Mantel, Sebastian Ruhleder</i> A Survey of Alerting Websites: Risks and Solutions – <i>Amrit Kumar, Cedric Lauradoux</i>	221W
11:00	Session 1c: WISE (Tools and Applications for Teaching, Chair: Matt Bishop) Welcome by IFIP WG 11.8 Chair – <i>Lynn Fletcher</i> Learn To Spot Phishing URLs with the Android NoPhish App – <i>Gamze Canova, Melanie Volkamer, Clemens Bergmann, Roland Borza, Benjamin Reinheimer, Simon Stockhardt, Ralf Tenberg</i> An Innovative Approach in Digital Forensic Education and Training: the EduFors Tool – <i>Primoz Cigoj, Borka Jerman-Blazic</i> On Experience of Using Distance Learning Technologies for Teaching Cryptology – <i>Sergey Zapechnikov, Natalia Miloslavskaya, Vladimir Budzko</i>	223W
11:00	Session 1d: IFIPTM (Short Papers) 1,2, pause: Lets start by meaningfully navigating the current online authentication solutions space – <i>Ijlal Loumi, Audun Jøsang</i> Data Confidentiality in Cloud Storage Protocol based on Secret Sharing Scheme: A brute force ajack evaluation – <i>Alexandru Butoi, Mircea Moca and Nicolae Tomai</i> The Detail of Trusted Messages: Retweets in a Context of Health and Fitness – <i>Natasha Dwyer, Stephen Marsh</i> Reusable Defense Components for Online Reputation Systems – <i>Johannes Sängner, Christian Richthammer, Artur Räscher, Günther Pernul</i>	120W
12:30	Lunch Break	Ground Floor
13:30	IFIP WG 11.11 Meeting	120W

14:00	Session 2a: IFIP SEC (Privacy II)	121W
	<p>POSN: A Personal Online Social Network – <i>Esra Erdin, Eric Klukovich, Mehmet Gunes, Gurhan Gunduz</i></p> <p>Strategic Noninterference – <i>Wojciech Jamroga, Masoud Tabatabaei</i></p> <p>Verifying Observational Determinism – <i>Jaber Karimpour, Ayaz Isazadeh, Ali Noroozi</i></p>	
14:00	Session 2b: IFIP SEC (Mobile and Cloud Services Security I)	221W
	<p>ApkCombiner: Combining Multiple Android Apps to Support Inter-App Analysis – <i>Li Li, Alexandre Bartel, Tegawendé F. Bissyandé, Jacques Klein, Yves Le Traon</i></p> <p>Assessment of the Susceptibility to Data Manipulation of Android Games with In-app Purchases – <i>Francisco Vigário, Miguel Neto, Diogo Fonseca, Mário M. Freire, Pedro R. M. Inácio</i></p> <p>An Empirical Study on Android for Saving Non-shared Data on Public Storage – <i>Xiangyu Liu, Zhe Zhou, Wenrui Diao, Zhou Li, Kehuan Zhang</i></p>	
14:00	Session 2c: WISE Panel: Building National Cybersecurity Workforces	223W
14:30	Session 2d: IFIPTM Keynote on Data Protection – Marit Hansen (ULD Kiel)	120W
15:30	Coffee Break	Ground Floor
16:00	Session 3a: IFIP SEC (Security Management and Human Aspects of Security I)	121W
	<p>Social groupings and information security obedience within organizations – <i>Teodor Sommestad</i></p> <p>Attack Trees with Sequential Conjunction – <i>Ravi Jhawar, Barbara Kordy, Sjouke Mauw, Sasa Radomirovic, Rolando Trujillo-Rasua</i></p> <p>Enhancing the Security of Image CAPTCHAs through Noise Addition – <i>David Lorenzi, Emre Uzun, Jaideep Vaidya, Shamik Sural, Vijay Atluri</i></p>	
16:00	Session 3b: IFIP SEC (Mobile and Cloud Services Security II)	221W
	<p>The Dual-Execution-Environment Approach: Analysis and Comparative Evaluation – <i>Mohamed Sabt, Mohammed Achemlal, Abdelmadjid Bouabdallah</i></p> <p>On the Privacy, Security and Safety of Blood Pressure and Diabetes Apps – <i>Konstantin Knorr, David Aspinall, Maria Wolters</i></p> <p>A Cloud-based eHealth Architecture for Privacy Preserving Data Integration – <i>Alevtina Dubovitskaya, Visara Urovi, Matteo Vasirani, Karl Aberer, Michael I. Schumacher</i></p>	
16:00	Session 3c: WISE (Software Security Education, Chair: Erik Moore)	223W
	<p>Cybersecurity through Secure Software Development – <i>Audun Jøssang, Marte Ødegaard, Erlend Oftedal</i></p> <p>Security Injections 2.0: Increasing Engagement and Faculty Adoption using Enhanced Secure Coding Modules for Lower-level Programming Courses – <i>Sagar Raina, Blair Taylor, Siddharth Kaza</i></p> <p>The Use of Software Design Patterns to Teach Secure Software Design: an Integrated approach – <i>Johan van Niekerk, Lynn Fletcher</i></p>	
16:00	Session 3d: IFIPTM Tutorial / Panel on Data Protection	120W
18:15	Bus Transfer from Dammtor (Shell gas station, REISERING buses) to Reception at Town Hall	
19:00	Reception (“Senatsempfang”) with Drinks and Finger Food	
	Hamburg Town Hall, Rathausmarkt 1, 20095 Hamburg; bring your invitation card with you!	
	Appropriate attire (business formal or business casual) expected, but not enforced strictly.	

08:30	Registration	First Floor
09:00	IFIP SEC Invited Talk Advances in Privacy Aware Authentication – Mirosław Kutylowski (Wrocław University of Technology)	221W
10:30	Coffee Break	Ground Floor
11:00	Session 4a: IFIP SEC (Applied Cryptography) Fast Revocation of Attribute-Based Credentials for Both Users and Verifiers – Wouter Lueks, Gergely Alpar, Jaap-Henk Hoepman, Pim Vullers Chaotic Chebyshev polynomials based remote user authentication scheme in client-server environment – Toan-Thinh Truong, Minh-Triet Tran, Anh-Duc Duong, Isao Echizen A Secure Exam Protocol Without Trusted Parties – Giampaolo Bella, Rosario Giustolisi, Gabriele Lenzini, P. Y. A. Ryan	121W
11:00	Session 4b: IFIP SEC (Software Security I) SHRIFT System-wide HybRid Information Flow Tracking – Enrico Lovat, Alexander Fromm, Martin Mohr, Alexander Pretschner ISboxing: an Instruction Substitution based Data Sandboxing for x86 Untrusted Libraries – Liang Deng, Qingkai Zeng, Yao Liu Exploit Generation for Information Flow Leaks in Object-Oriented Programs – Quoc Huy Do, Richard Bubel, Reiner Hähnle	221W
11:00	Session 4c: WISE (Innovative Methods, Chair: Natalia Miloslavskaya) Realism in Teaching Cybersecurity Research: The Agile Research Process – Melissa Dark, Matt Bishop, Rick Linger Assurance Cases as a Didactic Tool for Information Security – Roberto Gallo, Ricardo Dahab Cognitive Task Analysis Based Training for Cyber Situation Awareness – Zequn Huang, Chien-Chung Shen, Sheetal Doshi, Nimmi Thomas, Ha Duong A Cyber Security Multi Agency Collaboration for Rapid Response That Uses AGILE Methods on an Education Infrastructure – Erik Moore, Daniel Likarish	223W
11:00	Session 4d: IFIPTM (Authentication) Mathematical Modeling of Trust Issues in Federated Identity Management – Md. Sadek Ferdous, Gethin Norman, Audun Jøsang, Ron Poet Simple and Practical Integrity Models for Binaries and Files – Yongzheng Wu, Roland H.C. Yap Enabling NAME-based security and trust – Nikos Fotiou, George C. Polyzos	120W
11:00	Session 4e: Workshops on Assurance & Control / Information Security Mgmt Welcome by workshop co-chairs – Abbas Shahim / Gurpreet Dhillon, Karen Hedstrom Information assurance – Ronald Paans Keynote on Audit & Trust in cloud environments – Abbas Shahim	220W
12:30	Lunch Break	Ground Floor

14:00	Session 5a: IFIP SEC (Access Control, Trust and Identity Management I)	121W
	A Generalization of ISO/IEC 24761 to Enhance Remote Authentication with Trusted Product at Claimant – <i>Asahiko Yamada</i> Enhancing Passwords Security using Deceptive Covert Communication – <i>Mohammed Almeshekeh, Mikhail Atallah, Eugene Spafford</i> Information Sharing and User Privacy in the Third-party Identity Management Landscape – <i>Anna Vapen, Niklas Carlsson, Anirban Mahanti, Nahid Shahmehri</i>	
14:00	Session 5b: IFIP SEC (Software Security II)	221W
	Memoized Semantics-Based Binary Diffing with Application to Malware Lineage Inference – <i>Jiang Ming, Dongpeng Xu, Dinghao Wu</i> Mitigating Code-Reuse Attacks on CISC Architectures in a Hardware Approach – <i>Zhijiao Zhang, Yashuai Lü, Yu Chen, Yongqiang Lü, Yuanchun Shi</i> Integrity for Approximate Joins on Untrusted Computational Servers – <i>Sabrina De Capitani Di Vimercati, Sara Foresti, Sushil Jajodia, Stefano Paraboschi, Pierangela Samarati</i>	
14:00	Session 5c: WISE (Syllabus Design, Chair: Lynn Fitcher)	223W
	Reflections on the Ethical Content of the IT honours Program Project Module – <i>Lynette Drevin, Gunther Drevin</i> Professional Competencies Level Assessment for Training of Masters in Information Security – <i>Natalia Miloslavskaya, Alexander Tolstoy</i> History of Cryptography in Syllabus on Information Security Training – <i>Sergey Zapechnikov, Alexander Tolstoy, Sergey Nagibin</i>	
14:00	Session 5d: IFIPTM (Privacy)	120W
	Trust Driven Strategies for Privacy by Design – <i>Thibaud Antignac, Daniel Le Métayer</i> Lightweight practical private one-way anonymous messaging – <i>Anirban Basu, Juan Camilo Corena, Jaideep Vaidya, Jon Crowcrog, Shinsaku Kiyomoto, Stephen Marsh, Yung Shin Van Der Sype, Toru Nakamura</i> Privacy-Preserving Reputation Mechanism: A Usable Solution Handling Negative Ratings – <i>Paul Lajoie-Mazenc, Emmanuelle Anceaume, Gilles Gueje, Thomas Sirvent, Valérie Viet Triem Tong</i>	
14:00	Session 5e: Workshops on Assurance & Control / Information Security Mgmt	220W
	Security Operations Center – <i>Stef Schinagl, Keith Schoon</i> Investigating Cloud Storage Security Requirements and Critical Controls – <i>Farashazillah Yahya, Robert Walters, Gary Wills</i>	
15:30	Coffee Break	Ground Floor
16:00	Session 6a: IFIP SEC (Access Control, Trust and Identity Management II)	121W
	An Iterative Algorithm for Reputation Aggregation in Multi-dimensional and Multinomial Rating Systems – <i>Mohsen Rezvani, Mohammad Allahbakhsh, Lorenzo Vigentini, Aleksandar Ignjatovic, Sanjay Jha</i> A Comparison of PHY-Based Fingerprinting Methods Used to Enhance Network Access Control – <i>Timothy Carbino, Michael Temple, Juan Lopez Jr.</i> Model-driven Integration and Analysis of Access-control Policies in Multi-layer Information Systems – <i>Salvador Martínez, Joaquin Garcia-Alfaro, Frédéric Cuppens, Nora Cuppens-Boulahia, Jordi Cabot</i>	

- 16:00 Session 6b: IFIP SEC (Network Security) 221W**
 Authenticated File Broadcast Protocol – *Simão Reis, André Zúquete, Carlos Faneca, José Vieira*
 Automated Classification of C&C Connections through Malware URL Clustering – *Nizar Kheir, Gregory Blanc, Hervé Debar, Joaquin Garcia-Alfaro, Dingqi Yang*
 B.Hive: A Zero Configuration Forms Honeypot for Productive Web Applications – *Christoph Pohl, Alf Zugenmaier, Michael Meier, Hans-Joachim Hof*
- 16:00 Session 6d: IFIPTM (Trust in Online Collaboration) 120W**
 Obscuring Provenance Confidential Information via Graph Transformation – *Jamal Hussein, Luc Moreau, Vladimiro Sassone*
 Social Network Culture Needs the Lens of Critical Trust Research – *Natasha Dwyer, Stephen Marsh*
 Predicting Quality of Crowdsourced Annotations using Graph Kernels – *Archana Nojamkandath, Jasper Oosterman, Davide Ceolin, Gerben Klaas Dirk de Vries, Wan Fokkink*
 An Architecture for Trustworthy Open Data Services – *Andrew Wong, Vivky Liu, William Caelli, Tony Sahama*
- 16:00 Session 6e: Workshops on Assurance & Control / Information Security Mgmt 220W**
 IT audit and financial statement review – *Andre Sanders*
 Secure and Privacy Focused Customer Device Management in a Smart Household Environment – *Hartmut Richthammer, Dogan Kesdogan*
- 18:15 Bus Transfer** from Dammtor (Shell gas station, REISERING buses) to Gala Dinner
- 19:00 Gala Dinner at Lutter & Wegner**, Große Elbstraße 49, 22767 Hamburg
 Bring your badge / dinner ticket!
 Bus Transfer back to Dammtor at 21:30 and 22:30.

PRACTICAL INFORMATION

Public transport tickets can be bought at vending machines and from bus drivers. Single tickets Großbereich cost 3,10 EUR. All-day tickets cost 7,50. Day tickets valid from 9 am cost 6,00 EUR. Visit www.hvv.de for details. You can use Google Maps to plan your journey.

The closest taxi ranks are located at the Grand Elysee Hotel and behind Dammtor railway station.

For support please approach the registration desk or write an e-mail to sec2015@ifipsec.org.

08:30	Registration	First Floor
09:00	Session 7a: IFIP SEC (Security Management and Human Aspects of Security II) Investigation of Employee Security Behaviour: A Grounded Theory Approach – <i>Lena Connolly, Michael Lang, Doug J. Tygar</i> Practice-Based Discourse Analysis of InfoSec Policies – <i>Fredrik Karlsson, Goran Goldkuhl, Karin Hedström</i> Understanding Collaborative Challenges in IT Security Preparedness Exercises – <i>Maria B. Line, Nils Brede Moe</i>	121W
09:00	Session 7b: IFIP SEC (Cyber-physical Systems and Critical Infrastructures Security) Application of a Game Theoretic Approach in Smart Sensor Data Trustworthiness Problems – <i>Konstantinos Maraslis, Theodoros Spyridopoulos, George Oikonomou, Theo Tryfonas, Mo Haghighi</i> Securing BACnet's Pitfalls – <i>Jaspreet Kaur, Jernej Tonejc, Steffen Wendzel, Michael Meier</i> On the secure distribution of vendor-specific keys in deployment scenarios – <i>Nicolai Kuntze, Carsten Rudolph</i>	221W
09:00	Session 7c: WG 11.8 meeting (All IFIP WG 11.8 members) and WISE9 Closing	223W
09:00	Session 7d: IFIPTM (Authentication) A Cloud Orchestrator for deploying public services on the cloud—the case of STRATEGIC project – <i>Panagiotis Gouvas, Konstantinos Kalaboukas, Giannis Ledakis, Theo Dimitrakos, Joshua Daniel, Géry Ducatel, Nuria Rodriguez Dominguez</i> Integrating Security Services in Cloud Service Stores – <i>Joshua Daniel, Fadi El-Moussa, Géry Ducatel, Pramod Pawar, Ali Sajjad, Robert Rowlingson, Theo Dimitrakos</i> Building an Eco-System of Trusted Services via user Control and Transparency on Personal Data – <i>Michele Vescovi, Corrado Moiso, Mapa Pasolli, Lorenzo Cordin, Fabrizio Antonelli</i> Security-as-a-Service in Multi-cloud and Federated Cloud Environments – <i>Pramod S. Pawar, Ali Sajjad, Theo Dimitrakos, David W. Chadwick</i> The role of SLAs in building a Trusted Cloud for Europe – <i>Ana Juan Ferrer, Enric Pages i Montanera</i>	120W
10:30	Coffee Break	Ground Floor
11:00	IFIP SEC / IFIPTM Awards Session Video message from the Kristian Beckman Award 2015 winner – Ian Brown, Professor of Information Security and Privacy at the Oxford Internet Institute IFIP SEC 2015 Best Student Paper Award Reputation: from Social Perception to Internet Security – <i>Ehud Gudes, Ohio State University, winner of the William Winsborough Award 2015</i>	221W
12:30	IFIP SEC Closing Remarks	221W
14:30	Optional Social Event: Waterways trip “Fleetfahrt”. Boat departs from Jungfernstieg. You have to sign up for the trip at the registration desk. There is no organized transfer from SEC venue. There is no lunch on the boat and no space for large pieces of luggage.	
16:30	End of optional Social Event. Boat returns to Jungfernstieg.	



Reception at Town Hall on Tuesday (19:00–21:00)

Rathausmarkt 1, 20095 Hamburg

You need to bring the **invitation card and your passport**. Formal attire expected, but not enforced.

Bus Transfer: You can board our organized bus transfer (look out for REISERING buses), which leaves at 18:15 at the Shell gas station opposite Dammtor station.

Walking Directions: Alternatively, you can walk from the SEC venue to Rathausmarkt on your own. Walking will take 25 minutes (1.7 km). When leaving the conference venue, walk down Edmund-Siemers-Allee towards Dammtor station. Pass through the station and turn left onto the footbridge. When the bridge ends close to the entrance of Stephansplatz station, turn left to pass over the street using yet another footbridge. At the end of the bridge, turn right. After crossing Esplanade, walk down the pedestrianised Colonnaden. Then, cross Neuer Jungfernstieg at the traffic lights and walk down Jungfernstieg along the waterfront. After crossing the bridge, turn right onto Reesendamm, which will take you to the Rathausmarkt, the square in front of the town hall.

Enter the Town Hall through the main entrance in the center of the building. You will head into the large room called Rathausdiele. You will be asked for your invitation and guided upstairs. The reception takes place in the **Bürgermeistersaal**.



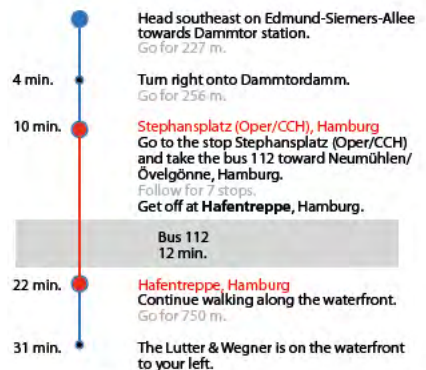
**Gala Dinner at Lutter & Wegner
on Wednesday (19:00–23:00)**
Große Elbstraße 49, 22767 Hamburg

You need to bring your conference badge or dinner ticket. Formal attire expected, but not enforced.

Bus Transfer: You can board our organized bus transfer (look out for REISERING buses), which leaves at 18:15 at the Shell gas station opposite Dammtor station.

Public Transport: Alternatively, you can use public transport from the SEC venue / Dammtor station to Hafentreppe. This will take about 40 minutes.

Return Transport: Bus Transfer back to Dammtor at 21:30 and 22:30. Alternatively, you can use the 112 bus from the Hafentreppe stop in the direction of Osterbrookplatz.





Optional Social Event on Thursday (14:30–16:30)

Waterways Tour ("Fleetsfahrt") starting at Jungfernstieg

You have to sign up for the social event at the registration desk. There is no organized transfer from the SEC venue, no lunch on boat, and no space for large pieces of luggage on the boat.

We will tour Hamburg via its canals ("Fleete") and witness grand contrast in the architecture. The historic Speicherstadt district, with its warehouses for carpets, coffee and spices from all over the world, stands in direct contrast to HafenCity, Hamburg's modern residential and business district. Our boat will glide along narrow waterways under countless old and new bridges, threading in and out of the wharves of Hamburg's old free port (when the tide allows) and past the Elbphilharmonie Concert Hall.

Public Transport: M4/M5 bus in direction of Stephansplatz

Walking Directions: Follow the directions for City Hall until you reach Jungfernstieg.

We will meet down at the waterfront where the boats wait for boarding.



Blankenese

(c) Jan Peer Baumann



Elbtunnel

(c) Thomas Wolf



St. Michaelis

(c) MtsTubbing



St. Pauli

(c) Christoph Bellin



Miniaturwunderland

Hamburg is Germany's second largest city, having about 1.75 million inhabitants. It is well known for its port, which is the largest in Germany and second in Europe only to Rotterdam.

To see the harbour, it is best to go to Landungsbrücken metro station, which is served by public metro lines S1, S2 (peak times only), S3 and U3. From the piers just across the station, you can take a harbour tour using one of the many ships departing from there. Provided you have a public transport ticket valid for HVV rings A and B (Großbereich), you can also use Ferry Line 62 to enjoy a cruise down the river to Finkenwerder (and back using the same ferry line). Close by you will find the historic old Elbe tunnel built in 1911, as well as the Michel (short name for the church of St Michaelis), from whose tower you can enjoy a great view of central Hamburg.

You can also take a walking tour from Landungsbrücken along the waterfront towards Baumwall station (U3) and further through the Speicherstadt, an area of historic warehouses dating back to the turn of the twentieth century. You can then walk towards the waterfront once more, passing through the newly-built HafenCity district, ending your walk at either Überseequartier or HafenCity-Universität station. If you have a couple of hours, Blankenese, a beautiful hill and stair village on the Elbe river is well worth a visit. Take the S1 from Hauptbahnhof, Jungfernstieg or Landungsbrücken.

Another part of the city that is well worth seeing is the area around the town hall (Rathaus), which was built in 1897. Close to the town hall, you will find the Jungfernstieg, located along the shore of the Binnenalster, a large lake right in the middle of the city. You will also find the main shopping streets of the city in this area (look around the streets Neuer Wall and Mönkebergstraße). Circling the Außenalster basin is very popular with runners, skaters, and bikers (about 8.5 km).

Hamburg is also home to many museums, such as the International Maritime Museum (<http://www.imm-hamburg.de/international/en/>) or the Miniatur Wunderland, one of the world's largest model railways (<http://www.miniatur-wunderland.com>). Also, the Museum für Völkerkunde Hamburg (Museum of ethnology) is worth a visit (<http://www.voelkerkundemuseum.com>).

If you are looking for nightlife, you can go to either the Sternschanze district south of the namesake metro station (Susannenstraße and Schulterblatt), which is reached via S11 (peak times only), S21, S31, U3, or to the famous red-light district around the Reeperbahn street in the St Pauli district, reached via metro station "Reeperbahn" served by S1, S2 (peak only) and S3 or "St Pauli" (U3).

You can find more information about Hamburg at <http://www.hamburg-tourism.de/>

AUSSEN-
ALSTER

STERN-
SCHANZE

SEC VENUE



UNIVERSITÄT HAMBURG
EDMUND-SIEMERS-ALLEE 1
WEST BUILDING



DAMMTOR

RAILWAY STATION

BINNEN-
ALSTER

SOCIAL EVENT



FLEETFAHRT
JUNGFERNSTIEG



RECEPTION

CITY HALL
RATHAUSMARKT 1

ST. PAULI

GALA DINNER

LUTTER & WEGNER

GROSSE ELBSTRASSE 64

ELBE RIVER

SPEICHERSTADT

HAFCITY