

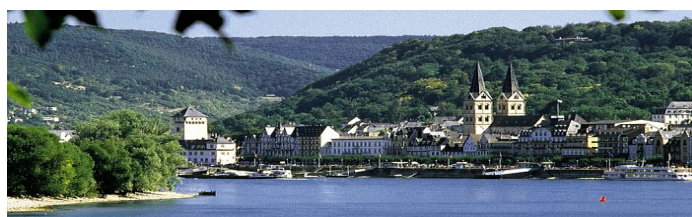
AEW10 – 2017

10th- Asia-Europe Workshop on Concepts in Information theory

A Tribute to Hirosuke Yamamoto (University of Tokyo, Japan)

Hotel Bellevue, Boppard, Germany

June 21 - 23, 2017



Chairs

Jos Weber,
University of Delft, the Netherlands
Tadashi Wadayama,
Nagoya Institute of Technology, Japan

Technical Program

Brian M. Kurkoski, JAIST, Japan
Yanling Chen, UDE, Duisburg

International Advisors

Han Vinck, UDE, Duisburg, Germany
Hiro Morita, UEC, Chofu, Japan

Local Arrangements

Han Vinck, UDE, Duisburg, Germany

Important dates

Register and book hotel (special price)
before May 1st.
Email: info@bellevue-boppard.de

Sponsors

University Duisburg-Essen
WIC, Turing Machines
IEEE Germany IT Chapter

ISIT 2017 will be in Aachen (< 200 km
from Boppard), Germany, June 25-30.
Train schedules: www.bahn.de

The Workshop AEW10 will be held in Boppard – Germany on June 21-23, 2017.
The theme is “Concepts in Information Theory”.

The 10th Asia-Europe workshop on “Concepts in Information Theory” is based on a longstanding cooperation between Asian and European scientists. The first workshop was held in Eindhoven, the Netherlands in 1989. The idea of the workshop is threefold: 1) improvement of the communication between the scientist in the different parts of the world; 2) exchange knowledge and ideas; 3) pay a tribute to a well respected and special scientist. We are very proud that for this workshop **Hirosuke Yamamoto** accepted our invitation to be the guest of honour. We also consider **Hirosuke Yamamoto** as our key lecturer. His style of presenting is extremely inspiring and always very clear. The organizers want to pay special attention to these aspects.

We encourage presenters to pay attention to the educational aspects of their presentation and concentrate on the main ideas and concepts in the developed theory. A special session “Hardware-Aware Information Theory” will be organized by Brian Kurkoski (JAIST, Japan) and Dirk Wübben (University of Bremen, Germany).

Hotel: Rooms can be booked directly at www.bellevue-boppard.de, under the keyword AEW10. Use the email address info@bellevue-boppard.de to get the special price (€ 90,00 single and € 139,00 double, including breakfast, sauna, fitness, pool). Boppard is in between Frankfurt and Aachen and easy to reach by train or car. It is about 2 Kilometers from the famous Loreley. We also plan an excursion on Friday June 23rd.

The [registration](#) (see next page) fee, Euro 210.-, includes get-together, lunch, dinner, banquet, coffee breaks and proceedings. We kindly request the registration and hotel bookings before May 1st.

For information: contact Prof. [Han Vinck](#), University of Duisburg-Essen, Germany (email: han.vinck@uni-due.de) or Prof. Hiro Morita (email: morita@uec.ac.jp)

AEW10 – 2017

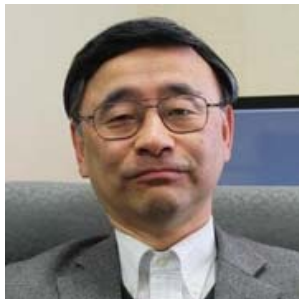
June 21 - 23, 2017

10th Asia-Europe Workshop on Concepts in Information Theory

A Tribute to Hirosuke Yamamoto

Hotel Bellevue, Boppard, Germany

REGISTRATION



Participants are requested to register by Email (han.vinck@uni-due.de) as soon as possible. A limited number of rooms have been blocked!

Name	1 st name/init
My contribution:	
Email address	
Signature	
Are you interested in the Friday afternoon excursion?	

Program AEW10

Wednesday: 21.06 18.00 Get together and Flying buffet in Chopin

Thursday: 22.06 08.50 - 17.50 Technical sessions

08.45 Welcome by the mayor of Boppard: Dr. Walter Bersch

08.50 – 09.30 **Kees Schouhamer Immink**, Progress in Constrained Codes

09.40 – 10.40

- Hiroshi Kamabe, Immink's Code and State Splitting
- Akiko Manada, Periodic-Finite-Type Systems for Flash Memories
- Jun Muramatsu and Shigeki Miyake, Concept of CoCoNuTS

11.10 – 12.30

- Hiroyoshi Morita, Double Nearest Neighbor Error Correcting Codes
- Yanling Chen and A.J. Han Vinck, On Error Detecting Codes
- Yuta Sakai and Ken-ichi Iwata
Extremality for Error Exponents of q-ary Input Discrete Memoryless Channels
- Ulrich Tamm, Information Complexity

14.00 – 14.40 **Martin A. Vinck**: Image processing in the brain

14.50 – 15.50

- Peter de With, Fons van der Sommen, Patrick Langenhuizen, Joost van der Putten
Feature Selection for Computer-Aided Detection of Cancer types
- Ashot N. Harutyunyan, Arnak V. Poghosyan, and Naira M. Grigoryan,
On Compression for Time Series Databases
- Ferdaous Chaabane, Graph based Satellite Image Time Series Analysis

16.20 – 18.10 *Hardware-aware information theory (Dirk Wübben and Brian Kurkoski)*

- Andreas Burg, Information theory for Communication Circuits on Unreliable Silicon
- Masayuki Imanishi and Tadashi Wadayama,
Lossy Compression based on Binarized Autoencoder for Pattern Classification
- Dirk Wübben, The Information Bottleneck Method: Fundamental Idea and Algorithmic Implementations
- Brian M. Kurkoski, The Max-LUT Method: Mutual-Information Maximizing Lookup Tables
- Jan Lewandowsky, An information Bottleneck LDPC Decoder on a DSP

19.00 - 23.00 Reception and Banquet in the *Chopin room*

Friday 23.06 08.50 – 13.00 Technical sessions

08.50 – 09.30 **Hirosuke Yamamoto**, University of Tokyo, Japan, AIFV Codes and related topics

09.40 – 10.40 *Narrow Band Powerline Communications (Han Vinck and Adel Ghazel)*

- Hela Gassara, On the Characterization and the Modelling of the Narrowband PLC Channel Transfer Function and Noise
- Adel Ghazel, Low Complexity and Reliable Narrow Band PLC Modem for Massive IoT Nodes
- Khaled Grati, CFAR Algorithm based Millimetric Radar Detection Enhancement for ADAS Applications

11.10 – 12.10

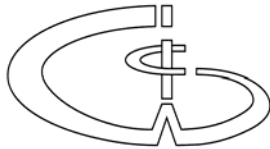
- Shigeaki Kuzuoka, On Universal FV Coding Allowing Non-vanishing Error Probability
- Stan Baggen, On Prediction using a Data Base: An Information-Theoretic Approach
- Mitsugu Iwamoto, A Card-based Cryptographic Protocol and a Logic Puzzle

12.10 closing of AEW10

14.00 – 17.00 Excursion followed by Wine tasting in the "Bellevue Cellar"

Our Sponsors:

TURING MACHINES Inc.



Benelux Working Community on Information theory



IEEE

Germany Chapter on Information theory

Participants AEW-10, Boppard (as of 11.09.2017)

Kees Schouhamer Immink¹, Turing Machines, Rotterdam
Martin A. Vinck, Ernst Strüngmann Institut, Frankfurt am Main
Hirosuke Yamamoto, University of Tokyo, Japan
Hiroyoshi Morita¹, EUC, Tokyo, Japan,
Ulrich Tamm, University Bielefeld, Germany
Yanling Chen, University Duisburg-Essen, Germany,
Stan Baggen, Philips Research Eindhoven, the Netherlands
Ashot Harutyunyan, VMware, Yerevan, Armenia
Mitsugu Iwamoto¹, Chofu, Japan
Jun Muramatsu, NTT, Japan

Shigeaki Kuzuoka, Wakayama University, Japan
Akiko Manada, UEC, Tokyo, Japan
Yuta Sakai, University of Fukui, Japan
Jos Weber¹, Delft University, the Netherlands
Peter de With¹, Eindhoven University of Technology, the Netherlands
Hiroshi Kamabe, Gifu University, Japan
Tadashi Wadayama, *Nagoya University, Japan*
Jan Lewandowsky, TU-Hamburg-Harburg
Dirk Wübben, Univ.Bremen
Andreas Burg, EPFL, Suisse

Brian Kurkoski, JAIST, Japan
Adel Ghazel¹, Tunis, Tunisia
Khaled Grati, Tunis, Tunisia
Héla Gassara, Tunis, Tunisia
Ferdaous Chaabane, Tunis, Tunisia
Han Vinck¹, University Duisburg Essen, Germany
Te Sun Han, Tokyo, Japan
Amos Lapidot, ETH Zürich, Suisse
Ken-ichi Iwata, Fukui University, Japan
Theo Swart, University of Johannesburg, South Africa

Hendrik Ferreira, UJ, Johannesburg, South Africa
Ning Cai, SIST, Shanghai
Yanling Geng, SIST, Shanghai

¹ plus partner (7)

Hiroko Morita, Karin Weber, Jelly de With, Besma Ghazel, Martina Vinck, Heike Harutyunyan, Kumiko Iwamoto

Frauke Koerdt-Wattjes (takes care of the Music)

EXCURSIONS in BOPPARD (chose one)

- Museum Visit: <http://museum-boppard.de/start-english/>



Thonet: famous designer of furniture

- To the Boppard spectacular view by cable car: Guide is Hiro Morita
- https://www.tripadvisor.de/ShowUserReviews-g198627-d3306006-r172756444-Sesselbahn_in_Boppard-Boppard_Rhineland_Palatinate.html
- Boat tour to the Loreley
Boat leaves Boppard 14.00 and returns 16.50, just before the wine tasting!
<https://www.k-d.com/en/cruises/loreley-tour/>
- Guided tour (English) through the old Boppard city
<https://www.boppard-tourismus.de/85-1-Klassischer-Rundgang-mit-Besichtigung-verschiedener-Bauwerke.html>

AFTER the EXCURSION (17.00)

Wine tasting in the Bellevue Cellar

Website Boppard Tourism:

<https://www.boppard-tourismus.de/1-1-Home.html>