Date and Location

Date: March 30th and 31st, 2015

Location: Lecture Hall EW 201
Eugene-Wigner-Building
Technische Universität Berlin
Hardenbergstr. 33
10623 Berlin, Germany

Registration

Please register online at **www.green-photonics-symposium.com** or via email at **registration@green-photonics-symposium.com** (w/ full name and affiliation) until March 13th, 2015. The attendance of Green Photonics Symposium is free of charge. Please bring your ID.

Confirmed Speakers

Markus Amann, TU Munich
John Cunningham, Oracle
Yoav Etsion, Technion Haifa
Alexander Fish, Bar-Ilan University
Eby Friedman, Rochester University
Chris Kocot, Finisar
Avinoam Kolodny, Technion Haifa
Karl Leo, TU Dresden
James Lott, TU Berlin
Mario Martinelli, Politecnico di Milano
Bert Offrein, IBM Zürich
Carmel Rotschild, Technion Haifa
Johann P. Reithmaier, Kassel University
Holger Schmeckebier, TU Berlin
Klaus Streubel, OSRAM München
Rodney Tucker, Melbourne University
Eicke Weber, Fraunhofer ISE Freiburg
Eli Yablonovitch, UC Berkeley
Eitan Zahavi, Mellanox Yokneam

The symposium is organized by Professor Dieter Bimberg and Professor Gadi Eisenstein and is funded by the Reinhard Frank Foundation.

For further information visit:

www.green-photonics-symposium.com

Halbleiter-Nanophotonik SFB 787

RBNI Russell Berrie Nanotechnology Institute
Technion - Israel Institute of Technology

RFS Reinhard Frank-Stiftung

Invitation and Program

Green Photonics Symposium 2015

March 30th-31st, 2015

- **Energy problems in data-com systems**
- **Energy problems in computers: from systems to the chip level**
- **Advanced solar energy harvesting**

In the framework of 50th anniversary of diplomatic relations between Israel and Germany.

Program

Monday, March 30th, 2015

9.30 am Session I
Opening and Ceremonial Act
(ID and previous registration obligatory)

Yakov Hadas-Handelsman,
Israeli ambassador to Germany

Dr. Benedikt Haller,
Foreign Office of Germany

Prof. Dr. Christian Thomsen,
President of Technische Universität Berlin

Prof. Dr. Peretz Lavie,
President of Technion Haifa

11.00 am Coffee Break

11.30 am Session II

Dieter Bimberg, TU Berlin, and
Gadi Eisenstein, Technion
Introduction

Eicke Weber, Fraunhofer ISE FreiburgNovel
„Concepts for Highest-Efficiency Photovoltaic Energy Harvesting“

Karl Leo, TU Dresden
„Highly Efficient Organic Solar Cells“

12.55 pm Lunch Break

1.45 pm Session III

Rodney Tucker, Melbourne University
„Towards a Green Internet“

Chris Kocot, Finisar
„Photonic Technologies for Efficient Datacom Modules“

Bert Offrein, IBM Zürich
„Photonics for Datacenters: How to Go Green“

Carmel Rotschild, Technion Haifa
„On the Transition from Photoluminescence to Thermal Emission and its Implication on Solar Energy Conversion“

4.00 pm Coffee Break

4.30 pm Session IV

Eby Friedman, University of Rochester
„Distributed On-Chip Power Delivery for Low Energy Nanoelectronic Systems“

Alexander Fish, Bar-Ilan University
„Alternative Logic Families for Energy-Efficient, Fast and Secured Chip Design“

Yoav Etsion, Technion Haifa
„System-on-Chip or System of Chips?“

6.00 pm Closing

Tuesday, March 31st, 2015

9.30 am Session V

Klaus Streubel, OSRAM München
„The Future of Lighting“

Eli Yablonovitch, UC Berkeley
„Regenerative Thermo-Photovoltaics; a New Opportunity in Black-Body Science“

Eitan Zahavi, Mellanox Yokneam
„Green Data Centers“

11.15 am Coffee Break

11.45 am Session VI

Holger Schmeckebier, TU Berlin
„Quantum-Dot Optical Amplifiers for Energy-Efficient Optical Communication“

Johann P. Reithmaier, Kassel University
„Power Saving in Communication Applications by Nano-Structured Optoelectronic Components“

12.45 pm Lunch Break

13.45 pm Session VII

James Lott, TU Berlin
„Energy Efficient VCSELs: How we will reach the performance limits“

Mario Martinelli, Politecnico di Milano
„Opportunity and Challenge Offered by the Photon Total Angular Momentum in the Context of Green Photonics“

Markus Amann, TU Munich
„High-Speed Energy-Efficient Long-Wavelength VCSELs“

13.15 pm Coffee Break

13.45 pm Session VIII

Avinoam Kolodny, Technion Haifa
„Power Efficient System Architectures“

John Cunningham, Oracle
„Silicon Photonics for Scalable WDM Interchip Links for Systems“

Gadi Eisenstein, Technion, and
Dieter Bimberg, TU Berlin
Concluding Remarks

5.00 pm Closing