

Hasselt Diamond Workshop 2024 SBDD XXVIII



February 28 – March 1, 2024 cultuurcentrum Hasselt (Cultural Centre), Hasselt, Belgium

This year, the SBDD XXVIII programme is **focussed on diamond surfaces and interfaces** while also covering annually returning topics. This comprises the growth of high quality diamond material, including, doping, physics of colour centres and their properties, chemistry and physics of diamond surfaces, etc. Furthermore, use of these properties in quantum devices, high-power electronics, biomedical and bio-sensing applications, magnetic resonance, and many more will be discussed. Traditionally, SBDD XXVIII is aiming at providing a forum where fundamental as well as application driven viewpoints can be discussed at the highest level.

The 28th edition of SBDD is looking forward to provide a forum where fundamental and application driven viewpoints can be discussed on the highest level.

Note

SBDD XXIV will cover three **full** days, starting on **Wednesday morning** (~ 8.30 AM) and ending **Friday afternoon** (~ 4 PM). Through the yearly rotation of the Chair, each edition gets a clear signature programme based on the Chair's field of expertise. The SBDD XXVIII programme will cover annually returning topics with *special emphasis* **on diamond surfaces and interfaces**. Traditionally, SBDD XXVIII is looking forward to provide a forum where fundamental and application driven viewpoints can be discussed on the highest level.

Abstracts on the following topics are encouraged

- High purity CVD diamond growth
- Diamond doping and colour centres
- Defect spectroscopy and transport
- Nanodiamond particles, characterisation and applications
- Diamond electronic devices

- Quantum sensing and related technologies, theory aspects
- Diamond electrochemistry and biosensing devices
- High energy radiation and particle detectors
- Diamond surfaces and nanostructures
- And many others ...

Abstracts must be submitted electronically here and must follow the template available at that link.

The confirmation of **acceptance** of the abstract will be sent before **January 24**, **2024**, together with the type of presentation, i.e. oral or poster.

The deadline for submission of abstracts is January 10, 2024. Late abstracts will only be considered for posters.

Invited Speakers

Shery L.Y. Chang, University of New South Wales, Australia

Correlative fluorescence and transmission electron microscopy revealing shape dependent fluorescence brightness in FND

Lilian Hughes, University of California, Santa Barbara, U.S.A.

Creating controlled NV systems in (001) and (111) diamond for quantum technologies

Satoshi Koizumi, National Institute for Materials Science (NIMS), Japan

Formation of n-channel diamond MOSFET and related CVD technologies

Renbao Liu, The Chinese University of Hong Kong, Hong Kong

Sensing critical magnetism using nitrogen-vacancy centers in diamond

Mohamadali Malakoutian, Stanford University, U.S.A.

Diamond thermal impact on the technology development beyond Moore's law

Fazhan Shi, University of Science and Technology of China, China

On diamond quantum sensing

Evan Thomas, Leibniz Universität Hannover, Germany

Polycrystalline diamond micro-hotplates

More speakers will be added in the near future. Please check our website regularly

Venue

SBDD XXVIII will take place at its traditional venue in the centre of Hasselt. The cultuurcentrum Hasselt is situated in the centre of Hasselt, just outside the ring road, and can be easily reached on foot.

cultuurcentrum Hasselt, Kunstlaan 5, B-3500 Hasselt, Belgium



Hotel

A number of rooms are pre-booked at a special rate in the <u>Express by Holiday Inn</u> hotel in Hasselt. The price for a single/double room will be €91, per room, per night, breakfast included, plus additional €2.5 city tax per night, per person. To book a room, please, only use this link: Hasselt Diamond Workshop 2024 - SBDD XXVIII.

The special rate is valid for stays from Monday, February 26, to Saturday, March 2, 2024.

Express by Holiday Inn

Address: Thonissenlaan 37, B-3500 Hasselt

Tel: +32 (0) 11 24 22 00 Fax: +32 (0) 11 22 39 35 E-mail: info@hihasselt.com



The fax and telephone number, and email address given above will lead you to the joint reservation desk of the Holiday Inn and Express by Holiday Inn, hotels which are both situated in Hasselt. In case of problems, we kindly ask to use these contact details.

In case of direct contact with the reservation desk, do not forget to mention your participation to "Hasselt Diamond Workshop 2024 – SBDD XXVIII" in order to reserve one of our pre-booked rooms in the Express by Holiday Inn and to ensure the special rate!

Manuscripts

Each presenter is offered the opportunity to submit a manuscript, which will go through a normal double peer reviewing process. Traditionally, all accepted manuscripts will be published in a special issue of *physica status solidi (a)*. Oral as well as poster presenters are encouraged to submit. Submission should be done online using a dedicated website. The link will appear on the SBDD XXIV website. Do **not** send your manuscript to the Editorial Office of physica status solidi.

Please go to the SBDD XXIV website for manuscript preparation instructions and templates: https://www.uhasselt.be/sbdd#anch-334-special-issue.





Registration details

Conference fee "SBDD XXVIII"

€320

This fee includes welcome & poster receptions, coffee breaks, and lunch during the three days of the conference.

Student conference fee "SBDD XXVIII"

€240

This fee includes welcome & poster receptions, coffee breaks, and lunch during the three days of the conference.

Conference dinner (optional) "SBDD XXVIII"

€75

Thursday evening, February 29, 2024.

Registration

Tuesday, February 27, 18:00 – 19:00: Express by Holiday Inn Wednesday, February 28, 8:30: cultuurcentrum Hasselt

Registration form

Please find the online registration form on the SBDD XXVII website: https://www.uhasselt.be/sbdd.

Payment

Three different payment options are available:

 Bank transfer: the total amount (fee + optional conference dinner) must be paid to the under mentioned account before March 1, 2024.

Bank: KBC

Address: Brusselsesteenweg 100, B-3000 Leuven, België

IBAN: BE53 4532 5078 0153 BIC (= SWIFT): KREDBEBB

Account holder: Hasselt University, Martelarenlaan 42, B-3500 Hasselt, Belgium

Reference: WOG/SBDD XXVIII - 2024/'name of participant(s)'

- Credit Card: : Credit card: the total amount must be paid at registration. An official SBDD receipt of payment will be provided upon request.
- Invoice: to request an (electronic) invoice, please mail send an e-mail to the <u>Conference Secretary</u> including the name(s) of the registrant(s), the total amount to be paid, the VAT number of your university/institute/company, the exact (email) address where to send it to, and any other details that need to be included on the invoice. If the invoice must be based on an order form, please make sure to provide this form **before February 21, 2024** by <u>email</u>.
- We cannot accept cash payment anymore! We apologise for the inconvenience this might cause.

Committees

Organisation

Ken Haenen (Co-chair), Hasselt University & IMEC vzw, Belgium, E-mail: ken.haenen@uhasselt.be

Miloš Nesládek (Co-chair), Hasselt University & IMEC vzw, Belgium, E-mail: milos.nesladek@uhasselt.be

Nora Colson (Conference Secretary), Hasselt University & IMEC vzw, Belgium, E-mail: sbdd@uhasselt.be

Jeroen Prooth (Conference Vice-Secretary), Hasselt University & IMEC vzw, Belgium, E-mail: sbdd@uhasselt.be

Programme Board

Jocelyn Achard, Université Sorbonne Paris Nord, France

Julien Barjon, Université de Versailles Saint-Quentin-en-Yvelines, France

Christoph Becher, Universität des Saarlandes, Germany

Philippe Bergonzo, Seki Diamond Systems, France

Chia-Liang Cheng, National Dong Hwa University, Taiwan

Ádám Gali, HAS-Wigner Research Centre for Physics, Hungary

Etienne Gheeraert, CNRS/Université Grenoble Alpes-Institut Néel, France

Richard B. Jackman, University College London, U.K.

Fedor Jelezko, Universität Ulm, Germany

Satoshi Koizumi, NIMS, Japan

Anke Krüger, Julius-Maximilians-Universität Würzburg, Germany

Quan Li, The Chinese University of Hong Kong, Hong Kong

Paul W. May, University of Bristol, U.K.

David A.J. Moran, University of Glasgow, U.K.

Mark E. Newton, University of Warwick, U.K.

Shannon S. Nicley, Michigan State University, U.S.A.

Julien Pernot, CNRS/Université Grenoble Alpes-Institut Néel, France

Bohuslav Rezek, CAS-Institute of Physics, Czech Republic

Jean-François Roch, École normale supérieure Paris-Saclay, France

Romana Schirhagl, Rijksuniversiteit Groningen, Netherlands

Matthias Schreck, Universität Augsburg, Germany

Michael Trupke, Universität Wien, Austria

Hitoshi Umezawa, AIST, Japan

Oliver A. Williams, Cardiff University, U.K.

Nianjun Yang, Hasselt University, Belgium

Deadlines

| January | 10 | 2024 | Deadline for uploading of abstracts |
|----------|----|------|---|
| January | 24 | 2024 | Confirmation of acceptance of abstracts |
| February | 19 | 2024 | Full programme and final announcement |
| February | 21 | 2024 | Registration deadline |
| March | 31 | 2024 | Deadline for receiving the manuscripts |

Workshop sponsored by <u>Hasselt University</u> through the <u>Institute for Materials Research (IMO)</u>, <u>IMOMEC</u>.

