## 2<sup>nd</sup> announcement

### http://www.uhasselt.be/sbdd



Hasselt Diamond Workshop 2025

# SBDD XXIX



# March 19 – 21, 2025 cultuurcentrum Hasselt (Cultural Centre), Hasselt, Belgium

This year, the SBDD XXIX programme is **focussed on quantum aspects of diamond** 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 XXIX is aiming at providing a forum where fundamental as well as application driven viewpoints can be discussed at the highest level.

The 29<sup>th</sup> 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 XXIX 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 XXIX programme will cover annually returning topics with *special emphasis on quantum aspects of diamond*. Traditionally, SBDD XXIX 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
- Doping and colour centre fabrication
- Defect spectroscopy and transport phenomena
- Nanodiamond particles
- Diamond-based electronics and power devices
- Quantum sensing and related technologies

- Biosensing and electrochemical innovations
- Radiation and particle detection technologies
- Surfaces and nanostructures
- Emerging frontiers in CVD diamond

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 **February 5**, **2025**, together with the type of presentation, i.e. oral or poster.

The deadline for submission of abstracts is February 12, 2025. Late abstracts will only be considered for posters.

#### **Invited Speakers**

Yasuki Einaga, Keio University, Japan

Electrochemical CO2 reduction by boron-doped diamond electrodes

- Nicole Fabbri, CNR-Instituto Nazionale di Ottica (INO) & European Laboratory for Non-Linear Spectroscopy (LENS), Italy Diamond quantum magneto-microscopy towards cardiac imaging
- Richard B. Jackman, University College London, U.K.

3D internal wires within diamond to produce a paradigm changing approach to diamond electronic devices for power applications

Erika Janitz, University of Calgary, Canada

Molecular sensing with atomic defects in diamond

Ying Jiang, Peking University, China

Probing phase transition of confined water by a quantum diamond sensor

Peter Knittel, Fraunhofer-Institute für Angewandte Festkörperphysik (IAF), Germany Placement of NV-centers in diamond through CVD growth techniques

Alexander Kubanek, Universität Ulm, Germany

Hybrid, spin-based quantum photonics with SiV-center in nanodiamonds

#### Peter Maurer, The University of Chicago, U.S.A

Protein-based qubits: Biosensors beyond diamond

Federico Picollo, Università di Torino, Italy

Nanodiamond properties tuning for radiotherapy application

#### Venue

SBDD XXIX 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 *Express by Holiday Inn* hotel in Hasselt. To book a room, **please**, **only use this link**: <u>Hasselt Diamond Workshop 2025 - SBDD XXIX</u>.

The special rate is valid for stays from Monday, March 17, to Saturday, March 22, 2025.





The 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 2025 – SBDD XXIX**" 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 <u>physica status solidi (a)</u>. 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 XXIX website. Do **not** send your manuscript to the Editorial Office of physica status solidi.

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



applications and materials science



#### **Registration details**

#### Conference fee "SBDD XXIX"

€335

€250

€80

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

#### Student conference fee "SBDD XXIX"

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

#### Conference dinner (optional) "SBDD XXIX"

Thursday evening, March 20, 2024.

#### **Conference Pre-registration and Payment Information**

We are excited to announce that this year's registration process will be **fully online**. Please follow the steps below to complete your registration and payment:

- Online Registration:

Click this link <u>https://sbdd-2025.eventsquare.store/en/sqbr5w3xl7kc/joyqp6rdn95x</u> to access the online webshop to select your conference tickets. After the payment, you will need to fill in additional information (name, institution, ...) to receive the tickets. This information will be used to create your conference badge, which can be picked up on Tuesday, March 18, 18:00 – 19:00: <u>Express by Holiday Inn</u> and Wednesday, March 19, 8:30: cultuurcentrum Hasselt together with the conference bag.

- Payment Options:

You can only pay the conference fee using online payment options, such as a credit card, or other available online payment methods. We will not have a payment device available at the conference and cash cannot be accepted.

- Proof of Payment (for reimbursements):

During checkout, select "I place this order for a company" to receive a proof of payment. If required, a PO number can be added.

- On-site Registration / Late Registration:

If you choose to register on-site during the conference, you will still need to complete the registration through the same online link <u>https://sbdd-2025.eventsquare.store/en/sqbr5w3xl7kc/joyqp6rdn95x</u>. Note that in this case, we will not have a pre-printed badge available for you.

#### Committees

#### Organisation

Quan Li (Chair, SBDD XXIX), The Chinese University of Hong Kong, E-mail: <u>liquan@cuhk.edu.hk</u>
Ken Haenen (Co-Chair), Hasselt University & IMEC vzw, Belgium, E-mail: <u>ken.haenen@uhasselt.be</u>
Miloš Nesládek (Co-Chair), Hasselt University & IMEC vzw, Belgium, E-mail: <u>milos.nesladek@uhasselt.be</u>
Nora Colson (Conference Secretary), Hasselt University & IMEC vzw, Belgium, E-mail: <u>sbdd@uhasselt.be</u>
Jeroen Prooth (Conference Vice-Secretary), Hasselt University & IMEC vzw, Belgium, E-mail: <u>sbdd@uhasselt.be</u>

#### **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	22	2025	Deadline for uploading of abstracts
February	5	2025	Confirmation of acceptance of abstracts
March	3	2025	Full programme and final announcement
March	12	2025	Registration deadline
March	31	2025	Deadline for receiving the manuscripts

Workshop sponsored by <u>Hasselt University</u> (IMO), IMOMEC.



through the Institute for Materials Research