

Conference Report

PCC Christmas Symposium Basel 2024

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Keywords: Basel · Interdisciplinary · PCC

The PCC

PCC (PhD Chemistry Community) was founded in 2012 in order to represent the PhD students and postdoctoral researchers at the University of Basel. Our goal is to create a community in which students of different research groups can connect and support each other. Through the coordination of both scientific and social events, we facilitate networking and knowledge exchange among researchers. Since 2013, we have organized an annual chemistry symposium, which is traditionally held on the first Friday of December.^[1]



Fig. 1. Current PCC board members. Back, from left to right: Amine Yücekul, Carlotta Seno, Pieter Brongers, Minqi Pan, Benjamin Vermeer, Anies Rösch, Andreas Ostertag, Elizaveta Maksimova, Richard Karl, Dorothee Wagner. Front, from left to right: Stephan Schumann, Tzu-Chin Chang Chien, Livia Müller, Chiara Disraeli, Salome Heim, Luise Sokoliuk, Joël Wellauer. Missing: Elinor Morris and Ilse Friedländer.

PCC Christmas Symposium Basel 2024

We held a full-day event for the past two years so we decided to once again invite five international and national keynote speakers.^[2] This year, for the first time, we invited two speakers from industry. With this change we aimed to provide more diversity to the audience and show some potential career paths after graduation. The program also featured four concise talks from graduate and postgraduate students, along with a poster session comprising 33 poster presentations. The 150 participants consisted of doctoral and post-doctoral researchers, professors and undergraduate students, mainly from the university of Basel. The symposium was chaired by Luise Sokoliuk, Minqi Pan, Salome L. Heim, Joël Wellauer, Pieter Brongers, Anies

Rösch, Stephan Schumann, Benjamin Vermeer, Prof. Dr. Dennis Gillingham and Andreas Ostertag.

Our first keynote speaker was Prof. Dr. **Tomáš Šolomek** (University of Amsterdam) who did his Ambizione fellowship at the University of Basel. In his talk he presented the efforts of his group to explore the properties of new organic molecules with interesting topography and topology. The molecules his group synthesized ranged from Möbius strips, that further deepen our knowledge of chirality and aromaticity, over porous organic cages, acting as charge-transfer compounds, to carbon nanostructures that liberate iron from ferrocene under visible light.^[3–5]

Dr. **Luca Ornago** (Chiral Nano) provided insight into the synthesis and characterization of carbon nanotubes (CNTs) which are synthesized in an automated fashion at the ETHZ and EMPA spin-off Chiral Nano and analyzed by Raman spectroscopy to ensure the highest purity. Their innovative processes allow them to transfer single CNTs directly into devices. CNTs recently gained a lot of attention as versatile materials that show a wide variety of electrical and optical properties depending on their chirality and promise to enable innovative applications.^[6–13]

Prof. Dr. **Katja Heinze** (Johannes Gutenberg University Mainz) gave a talk about recent developments of photoactive coordination compounds made from non-precious, earth-abundant elements. In contrast to the well-established and conventionally used noble metals, the earth-abundant alternatives are much cheaper and are able to perform photochemical transformations in comparable yields as was shown in her talk.^[14–16]

Dr. **Sotiria Mostrou** (Biosomo) gave a very interactive talk about transitioning from academia to ‘chempreneurship’. In this talk she told the audience about her career path and the motivation which drove her to become an entrepreneur herself. She gave advice on the skill set which is beneficial in this profession, as well as the mindset. She talked about the different challenges one can encounter during this career path but also showed its privileges.

Prof Dr. **Ben Schuler** (University of Zürich) talked about highly charged intrinsically disordered proteins (IDPs), which perform essential functions without being folded – in contrast to traditionally studied folded proteins. His group uses single-molecule spectroscopy combined with simulations to quantify IDP ensembles, and probe their dynamics, functional interactions with other proteins, and their propensity for condensate formation.^[17–22]

The short talks were presented by **Dongping Chen**, **Carlotta Seno**, **Mikolaj Roguski** and **Dr. Lukas Schneider**. They presented their recent work in biochemistry, bioinorganic chemistry, material science and physical chemistry.

Poster Session and Prizes

For this year’s edition, the poster session, which is traditionally accompanied by lunch, had 33 active presenters. The different posters showcased the contributions from nearly all research groups within the entire chemistry department and allowed for interdisciplinary discussions among the attendees.

The three poster prizes that were sponsored by youngSCS were awarded to Ivan Cornu, Jikson Pulparayil Mathew, and Dorothee Wagner. The winners were chosen by a jury composed of Prof. Yang Yao, Prof. Sonja Schmid, Prof. Marcel Mayor and Patrick Fritz (youngSCS representative).



Fig. 2. Impressions from the poster session.

Since 2021, the departmental PhD prize is awarded during the Christmas Symposium. The prize has been given for the best doctoral theses from the previous year and is chosen by a council of professors within the department. Congratulations to the winners Dr. T. Schmidt and Dr. L. Schneider for their outstanding work.

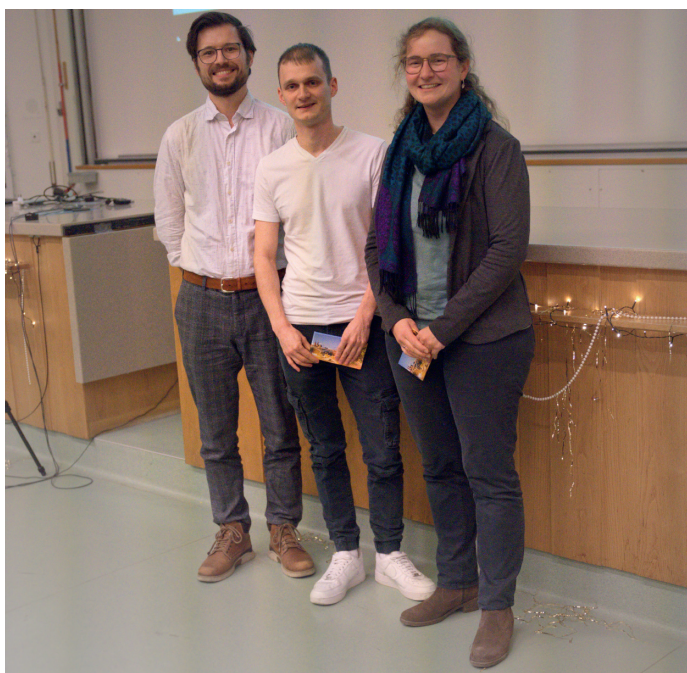


Fig. 3. From left to right: Patrick Fritz (YSCS), Poster prize winners Ivan Cornu and Dorothee Wagner. Missing: Jikson Pulparayil Mathew.

Acknowledgments

The authors express their gratitude to the Department of Chemistry, the Ressort Nachwuchsförderung at the University of Basel, Merck, and youngSCS for providing funding for the Christmas Symposium. Special thanks to Ana-Maria Jurić (pictures in this report) and Maryame Bina for capturing the pictures. Also, we want to thank all the volunteers, the administration, and the facility team of our department. Without their work, the event would not have been possible.

Received: January 15, 2025



Fig. 4. Left: Dennis Gillingham with PhD award winner Dr. Lukas Schneider. Right: Christof Sparr and group members as representatives for PhD award winner Dr. Tanno Schmidt.

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