## Guest editorial: Insights into the work of a new generation of young tribologists

Dear readers,

It is with great pleasure that we present to you this special section dedicated to the 5th Young Tribological Researcher Symposium (YTRS). Hosted by the Young Tribologists, a working group established in the esteemed German Society for Tribology (GfT) in 2015, this symposium has been a beacon of inspiration for the new generation of tribologists. With a steadfast commitment to nurturing young talent and fostering knowledge exchange, the YTRS has grown into a vital platform for students and young researchers in the field of tribology.

The 5th YTRS, held on the 21st and 22nd of June 2022, took place in a partially presential (hybrid) format at the MicroTribology Center  $\mu$ TC in Karlsruhe. The symposium boasted an impressive program with nearly 30 presentations. The diversity of topics covered was truly remarkable, ranging from cutting-edge talks on molecular dynamics simulation to the investigation of entire powertrains. These presentations offered valuable insights into the latest advancements in the field, demonstrating the young tribologists' commitment to tackling real-world challenges and contributing to the everevolving field of tribology.

We extend our heartfelt gratitude to the participants who traveled from all corners of Europe to join us at the symposium. Your active involvement and engaging discussions enriched the event and epitomized the spirit of collaboration that defines the working group. By fostering an environment of knowledge sharing and open dialogue, we continue to build a strong and interconnected community of Young Tribologists that will undoubtedly lead the field into a promising future.

The selection of research articles featured in this special section represents a small glimpse into the exceptional work presented at the symposium. Each contribution exemplifies the dedication and passion of the young researchers involved, as they push the boundaries of tribological knowledge and strive for innovative solutions to practical challenges. On behalf of the Young Tribologists, I extend our heartfelt gratitude to the authors for submitting their manuscripts to this special section. Your commitment to sharing your research insights and findings with the wider scientific community is commendable and greatly appreciated. We also kindly acknowledge the effort and expert opinions of the esteemed reviewers involved in the evaluation of this special section. It is through this collaborative effort that we can collectively advance the frontiers of tribological research.

I would like to extend our sincere thanks to Prof Dienwiebel and the MicroTribology Center  $\mu$ TC for talking the patronage and hosting the symposium. Also, I would like to acknowledge the sponsors who supported the 5th YTRS. Your generous contributions made this symposium possible and allowed young researchers to take advantage of this invaluable opportunity to network, learn and grow within the tribological community.

Finally, I would like to express our gratitude to the Emerald Publishing Group for offering this special issue. Your dedication to promoting scientific research and enabling us to showcase the work of these talented young tribologists is instrumental in fostering progress in our field.

As we reflect on the success of the 5th YTRS, we are filled with optimism for the future of tribology. The passion and enthusiasm displayed by the young researchers who participated in this symposium remind us that the torch of innovation and discovery is being passed to a capable and ambitious new generation. With their dedication and ingenuity, we are confident that the field of tribology will continue to flourish and make a positive impact on society, energy efficiency, and sustainability.

Thank you for joining us on this exciting journey into the work of a new generation of young tribologists. I hope this special section will inspire you as much as it has inspired me.

Sincerely,

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This paper forms part of a special section "Insights into the work of a new generation of young tribologists", guest edited by Max Marian.