

## Preface

*The 14<sup>th</sup> International Workshop on Beam Cooling and Related Topics, COOL'23, was hosted by CERN, the European Laboratory for Particle Physics, from the 8<sup>th</sup> to the 13<sup>th</sup> of October 2023. It was the first in-person meeting of the beam cooling community in four years due to the covid-19 pandemic and was held on the shores of Lake Geneva at the Royal Plaza Hotel in Montreux.*

*Due to the difficult geopolitical and economic situation, the organisation of the workshop proved to be very challenging. Nevertheless, it was attended by nearly fifty participants from countries in Europe, America, and Asia. Twenty-nine oral contributions were presented in sessions covering all aspects of particle beam cooling including status reports from existing and planned facilities. In the dedicated poster session on the Thursday afternoon, eighteen posters were displayed enabling the participants to further discuss recent advances and new techniques. The workshop concluded on Friday with a special lecture entitled "Fundamental Physics with Antihydrogen" given by Professor Geoffrey Hangst of Aarhus University.*

*As is custom since COOL'13, the Dieter Möhl medal was awarded to our colleagues who have made significant contributions to the field of beam cooling. This year five awards were given, two for early-stage researchers and three for lifetime achievements.*

*The scientific program was complemented with several social events to enable the participants to fully appreciate the Montreux Riviera region. A boat trip on the lake with wine tasting accompanied with local specialities concluded the first day of the workshop. An afternoon excursion to the Rochers-de-Naye was organised on Wednesday with spectacular views of the Alpes extending beyond the Bernese Oberland. The workshop banquet took place on the final evening and, for the first time, prizes for the three best poster contributions were awarded.*

*The organisers are grateful to the staff of the Royal Plaza Hotel and to the Montreux Tourist Office for their help in ensuring the success of the workshop.*

*Special thanks should be given to the conference secretary Madeleine Catin and to the local organising committee members; Alexandre Frassier, Lars Joergensen and Gunn Khatri, who prepared and managed the workshop with high efficiency and great enthusiasm. A special mention to our editors Christine Petit-Jean Genaz, and Volker RW Schaa for the publication of the workshop in the JACOW system and for their exceptional editorial work.*

*Finally, we would like to express our sincere appreciation to all the participants for their active participation in this workshop.*

*The next COOL workshop will be held in 2025 in the United States of America under the auspices of Stony Brook University in New York state. We look forward to seeing you there!*

**G rard Alain Tranquille**  
**COOL'23 chairman**