

## Welcome to HB2016

Welcome to Malmö and to the 57<sup>th</sup> ICFA advanced beam dynamics workshop on high-intensity and high-brightness hadron beams.

HB, High-Brightness High-Intensity Hadron Beams workshop series is and has been a network for scientists and engineers involved in the study, design, development or operation of hadron accelerators.

Since the first HB within the ICFA's (International Committee for Future Accelerators) ABDW (Advanced Beam Dynamics Workshops) series, there has been a giant leap in the size and power of high intensity hadron accelerators, and our community has successfully broken one record after another. At the time of the first HB, the highest power accelerator had not yet reached a megawatt of power; today we have accelerators operating above 1 MW, making the hard challenges look easy. On the energy frontier we have passed the 10 TeV (c.o.m.) energy for protons and the 1 PeV for ions. This wouldn't have been possible without extensive study of the beam dynamics, halo production mechanisms, developments in diagnostics devices, loss measurement and activation, and of course the availability of high power targets. Today our community is proposing accelerators with powers above 10 MW, and to make that proposal a reality; we should look at how we made it past the MW threshold and see how to take the next steps. The HB has been and still is the forum to discuss our ideas, cherish our successes together, and share our failures and the lessons we have learned from them.

The HB starts with a day of plenary talks, and the first day ends with a poster session. In the next three days two sessions will be held in parallel, covering Beam Dynamics in Rings (WG-A), Beam Dynamics in Linacs (WG-B), Accelerator Systems (WG-C), Commissioning and Operations (WG-D) and Beam Instruments and Interactions (WG-E). On the last day of the workshop there will be a plenary summary and discussion on parallel sessions and we will end the workshop with a bus tour (optional to participate) to the ESS construction site (WG-E). The program of the HB is set by the International Organizing Committee (IOC), which also selects the plenary speakers and working group conveners. The speakers of the parallel sessions are invited by the working group conveners and are selected from the submitted abstracts. These committees have done an excellent work in setting up the program, and without their help this workshop would have been impossible.

Malmö is the third largest city in Sweden though small compared to many cities in the rest of the world. On the other hand Malmö is home to people from more than 175 nationalities, is an eco-friendly city and one of the greenest cities in Europe.

We very much look forward to your active participation in the workshop. Once again, welcome to Malmö and HB2016.

Mamad Eshraqi  
HB2016 Chairman