

# Foreword

The workshop “Dark Forces at Accelerators” was held in Frascati on October 16-19, 2012, with the idea of discussing the most recent results in the search for hidden forces mediated by new gauge bosons with masses in the range 1-1000 MeV.

It followed a first successful meeting held in September 2009 at SLAC. Since then, several experimental activities have started and have produced a large amount of new results. This has been a worldwide effort, involving laboratories in China, Japan, Germany, Italy and the USA, all of which have contributed to the workshop.

Many new experiments are also under way, and are expected to produce results in the years to come. The status of their construction and data taking plans, as well as their discovery potentials were thoroughly discussed.

The existence of new interactions can be a part of the solution of the dark matter problem; it can also help solving the puzzle of the observed discrepancy between the measured and calculated values of the muon  $g-2$ . These issues were also part of the workshop’s program.

In the four days of the workshop, about 60 physicists, both theorists and experimentalists, have participated to a lively and fruitful discussion on all of the above topics. This book intends to testify the vitality of this community and set a milestone for future discussion in the field.

Frascati, April 2013

The Editors