



Preface

The symposium “Subnuclear Structure of Matter: Achievements and Challenges” took place in Bonn (Germany) from June 6th to June 9th, 2016. It was intended to summarize all the work that has been done in the framework of the Collaborative Research Center SFB/TR 16 “Subnuclear Structure of Matter” of the Universities Bonn, Bochum and Gießen, funded for 12 years (three funding periods) by the Deutsche Forschungsgemeinschaft (DFG). The research in this CRC was centered around the baryon spectrum made of light quarks, combining photoproduction experiments at the electron accelerator ELSA at Bonn with state-of-the-art theoretical approaches as well as detector, accelerator and polarized target developments. In essence, the research performed within the SFB/TR 16 contributed significantly to our understanding of the strong interactions in the non-perturbative regime of QCD.

The symposium consisted of invited talks, that fell into two groups. On the one hand, there were reports of the various projects funded in the SFB/TR 16, mostly delivered by one of the project leaders. The corresponding contributions are given in these proceedings, together with the summaries of projects funded in earlier periods only. On the other hand, external speakers were invited to present various topics related to this research and to elucidate the role of the SFB/TR 16 in advancing our understanding of the respective topic. These were Volker Burkert, David Richards, Kurt Aulenbacher, Reinhard Schumacher, Barry Holstein, Kenta Itahashi, Achim Denig, Christian Lang, Andreas Thomas, and Michael Döring. We are grateful to these colleagues for making this effort and in particular to Volker Burkert, Barry Holstein and Michael Döring for providing a write-up to these proceedings.

All this work would not have been possible without the substantial funding from the DFG to the SFB/TR 16 and also due to the sizeable support from the Universities. In particular, we are grateful to Bonn University for the on-going major funding to support the local infrastructure, especially ELSA. This has not only laid the foundation for all the high-class physics results reported here, but also helped to educate a large number of students over the years who made very essential contributions to the physics results reported in these proceedings.

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