



Proceedings

# Particle physics for primary schools – enthusing children to modern science †

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**Abstract:** A particle physics workshop for UK primary schools has been designed and trialed in 2016-2017 as a collaboration between the University of Birmingham and the Odgen Trust. The workshop allows young children (ages 8–11) to learn the world of fundamental particles, use creative design to make particle models, and learn creatively about how particles interact. The initial resources were reviewed and improved, based on the feedback received from school teachers and communicators. The final workshop has been delivered in many primary schools in UK in 2017-2020, receiving very positive evaluation and clear evidence of impact. A set of primary school teachers have been trained to deliver the workshop. Resources specifically created for teachers and educators have been made available on the University website. Despite particle physics is often classified as a subject too difficult and abstract for primary schools, the workshop uses familiar concepts to children that make particle physics accessible and enjoyable. The workshop explores the ability of young children to be imaginative and creative and exploits it to teach them the fundamentals of particle physics in a fun way. Most importantly, the workshop is effective in enthusing children to modern science and gives a wider understanding of how science works. The resources have been used in the Playing with Protons events for teachers at CERN, and have been translated in Greek and Italian.

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