

Frontiers of the virtual photons program at MAMI

Concettina Sfienti^(a), Patrick Achenbach^(a), Carlos Ayerbe Gayoso^(a), Ralph Böhm^(a),
Damir Bosnar^(b), Luka Debenjak^(c), Achim Denig^(a), Michael O. Distler^(a),
Anselm Esser^(a), Hélène Fonvieille^(d), Ivica Friščić^(b), Mar Gómez^(a), Harald Merkel^(a),
Duncan G. Middleton^(a), Matthias Molitor^(a), Ulrich Müller^(a), Lars Nungesser^(a),
Josef Pochodzalla^(a), Takehiko Saito^(a), Salvador Sánchez Majos^(a),
Björn Sören Schlimme^(a), Matthias Schoth^(a), Florian Schulz^(a), Simon Širca^(c),
Michaela Thiel^(a), Thomas Walcher^(a)

A1 Collaboration

^(a) Institut für Kernphysik Johannes Gutenberg-Universität D-55099 Mainz, Germany

^(b) Department of Physics, University of Zagreb, HR-10002 Zagreb, Croatia

^(c) University of Ljubljana and Institut “Jožef Stefan”, SI-1000 Ljubljana, Slovenia

^(d) Laboratoire de Physique Corpusculaire de Clermont-Ferrand, CNRS/IN2P3, Université Blaise Pascal, F-63000 Clermont-Ferrand, France

The most recent results and future physics program of the high precision electron-scattering experiment at MAMI will be presented.

The A1 three high-resolution spectrometers facility allows unique quality of virtual photon experiments. High precision form factor measurements, few-baryon systems high -resolution structure studies and the innovative way in the search of dark photons illustrate the interplay between such diverse fields as precision atomic physics, nuclear astrophysics and astroparticle physics where hadron physics plays a central and connecting role.

E-mail:

sfienti@kph.uni-mainz.de