Hadron interactions at intermediate energies

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Hadron interactions at intermediate energies – both in elementary reactions and on complex nuclear targets – are an important means to investigate and to determine properties of strongly interacting particles in the regime where perturbative QCD is not applicable – sometimes called 'strong QCD'. Such measurements are performed at a number of different facilities throughout the world, exploiting complementary probes; beams of (i) real photons, (2i) electrons, (3i) mesons (like pions and kaons), and (iv) protons (anti-protons) or deuterons. Polarization of beams, targets and reaction products is an essential ingredient to deduce the desired information.
In my talk, I will discuss recent experimental achievements in the fields of (i) nucleon resonances, (2i) nucleon-nucleon, hyperon-nucleon and (3i) meson-nucleon interactions. I will also give an outlook onto plans for a future facility, which is planned to be built in Germany.