A major goal in strong-interaction physics is to understand the nature of hadrons that make up visible matter, and much research activity revolves around two fundamental questions: what are hadrons made up of and how does Quantum Chromo-dynamics (QCD), the strong-interaction component of the Standard Model, produce them? Although these questions are simple, the answers may not be. To address these questions, spectroscopy is a valuable and time-honored tool, as it enables us to understand the structure of mesons, baryons and exotics and how they are produced. In this context, the recent discovery of many new hadronic states, in particular the plethora of observed *X*, *Y*, *Z* states, is exciting, as these objects challenge the commonplace view of hadrons as either quark-antiquark or three-quark color-singlet states.

Experimental investigations of the hadron structure and spectrum are performed via hadron-hadron scattering processes, photo- and electro-production by nucleons or, more recently, by means of heavy-meson decays at world-wide accelerator facilities. In the last decade, these investigations have yielded an enormous amount of data, which have vastly improved our knowledge of the baryon and meson spectrum and enabled us to establish the existence of new states, together with an empirical determination of their angular momentum, content, and spin. Recent highlights are observations of multi-quark states outside our well-known hadronic pictures, which have been interpreted as the long sought-after penta- and tetraquark systems.

However, identifying new states and their quantum numbers requires complex analysis (so-called partial wave analysis), which sometimes relies on model assumptions. For many of the new states, we still do not know the quantum numbers. Different theoretical models for the structure of the new states give different predictions of their quantum numbers. Therefore, the composition of many states remains controversial. Indeed, some of these newly discovered hadrons seem to fit the picture of compact multi-quark states, while others may qualify as molecular states or both, i.e. the superposition of a constituent-quark core and a meson cloud, and one of the main goals of this workshop will be to discuss how to distinguish them.

We expect vigorous activity in the field by the end of this decade with the advent of a new generation of accelerators and experiments, in particular the PANDA at FAIR in Germany, the NICA in Russia and the EIC in Brookhaven, which will dedicate resources and time to the electro-production of charmonia. These new efforts will add to and complement ongoing experimental programs, namely BES III in China, Belle II and J-PARC in Japan and LHC*b* at CERN, which will profit from the high luminosity running of the LHC. It is therefore of the utmost importance to prepare future experiments with guidance from new developments in theory, phenomenology and the analysis tools used in current experiments. In particular, interaction between theorists and experimentalists is important in order to elaborate strategies and improve methods and techniques that enable experimental data to be compared with theory, or more precisely, enable the extraction of physically relevant quantities that can be calculated by theorists.