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Hadron calorimeter (PSD) with new photodetectors (MPPC) in NA61 experiment at CERN.

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The Projectile Spectator Detector (PSD) is a segmented hadron calorimeter used in NA61 experiment (CERN) to determine a collision centrality as well as an event plane orientation in nucleus-nucleus collisions. The main goal of the experiment includes studying the onset of deconfinement and searching for the critical point of strongly interacting matter. It is of crucial importance to have a precise characterization of the event class with the PSD for the analysis of event-by-event observables. The PSD has been already used for centrality selection on trigger level in measurements of Be+Be and Ar +Sc reactions at beam energies 13 – 158 AGeV and Pb+Pb reaction at beam energy 30AGeV. In 2016, the central modules of PSD have been equipped with new Hamamatsu MPPC silicon photodetectors in order to extend dynamic range for studying Pb+Pb reaction at the full energy range (13 – 158 AGeV). Results of the PSD response on proton and lead beams will be presented.

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