Ultra High Energy Cosmic Rays (UHECRs) have been observed in various extensive air shower experiments, but yet poorly known their origin or chemical composition. Hadron interaction of UHECRs is one of key issues to understand UHECR air showers. The LHCf experiment measures particle productions at the very forward region of LHC, which is important to understand $10^{17}$ eV air showers. This region is also interesting from the viewpoint of non-perturbative QCD phenomena with low-x gluons in very high energy density with relevance to color glass condensation or spin physics. In this talk recent results from the LHCf experiment at LHC pp and pPb collisions will be reported. Also recent activity crossing over LHC and UHECR, and possible future pp, pA or AA measurement in the very forward at RHIC or at future LHC will be presented.

なお、今回のセミナーは、第35回「原子核ハドロン物理セミナー」を兼ねております。セミナー内容は http://silver.j-parc.jp/hadron/hadron_seminar/index.html でご覧になれます。