Contribution ID: **31** Type: **Talk (invited speaker only)**

[D07] First prototype of finely segmented HPK AC-LGAD detectors

Thursday 8 October 2020 23:00 (30 minutes)

Abstract : The presentation describes the development of silicon detector for high energy particle physics experiment, focusing on the detectors that combine fast timing capabilities with fine spatial resolution. The Low Gain Avalanche Detector(LGAD) technology developed by HPK achieved 30 ps time resolution with larger (~ millimeter scale) pad type electrode detectors. To have spatial resolution with high fill factor, development of LGAD detectors with AC-coupled electrode (AC-LGAD) is carried out at KEK/Tsukuba and Hamamatsu Photonics (HPK). In this talk, first prototype performance of finely Stripped/Pixelated AC-LGAD detectors will be presented.

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Session Classification: Timing Detector II