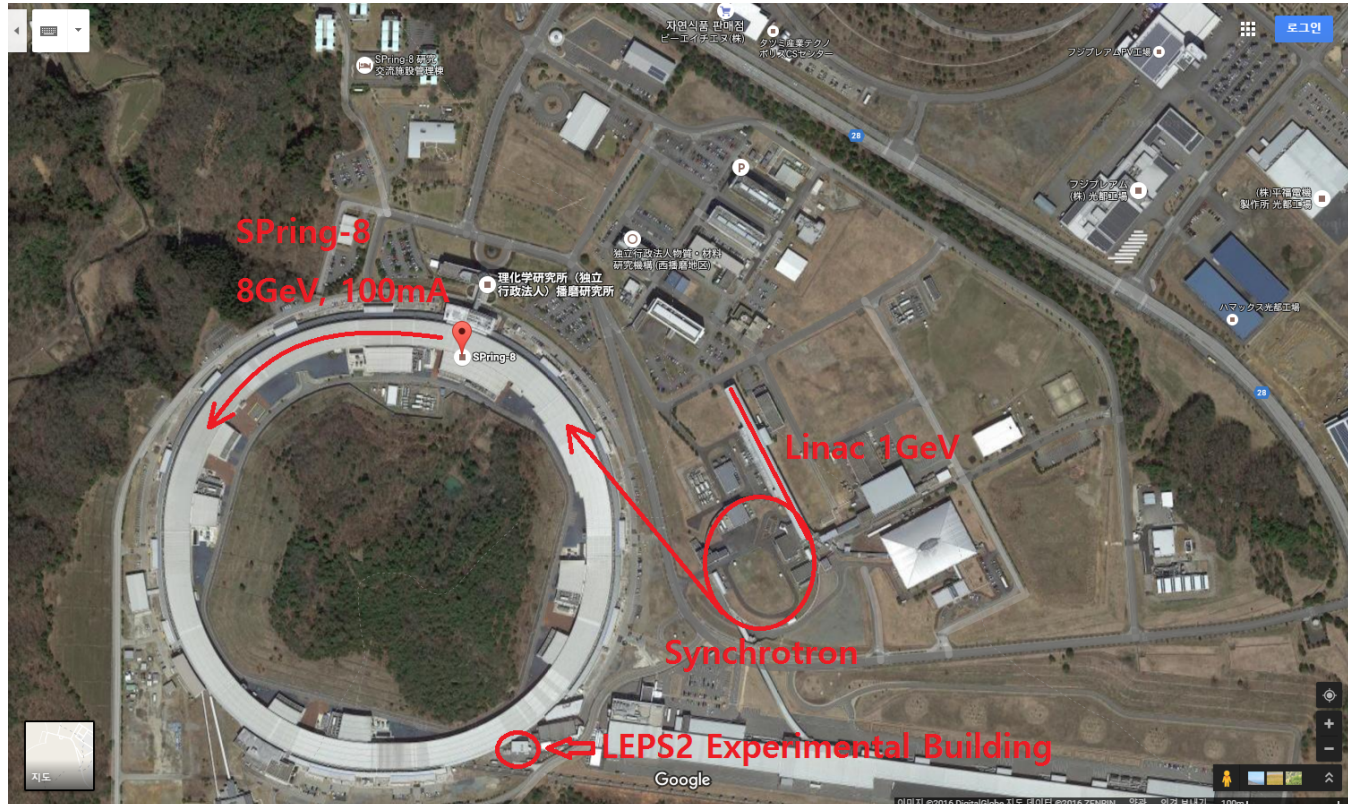




Upgrades in the BGOegg Gamma Spectrometer for Photoproduction at LEPS2/SPring-8

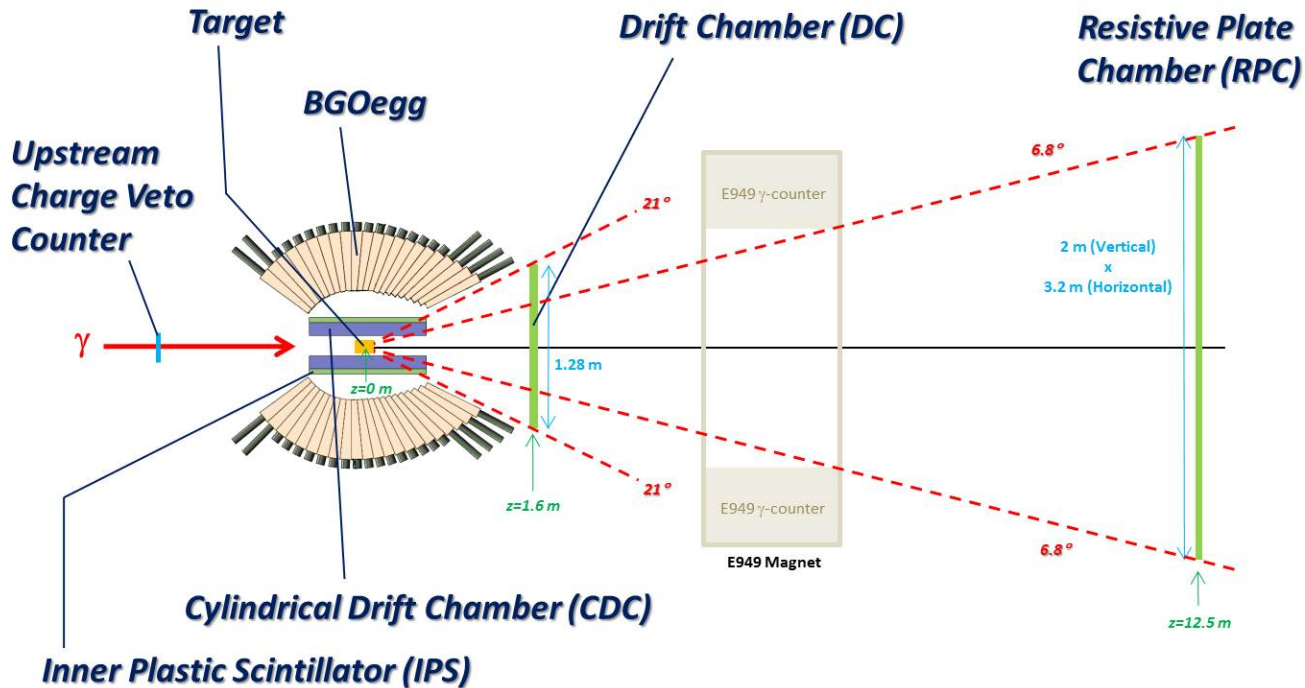
Jahmin Jo
Korea University

Spring-8/LEPS2



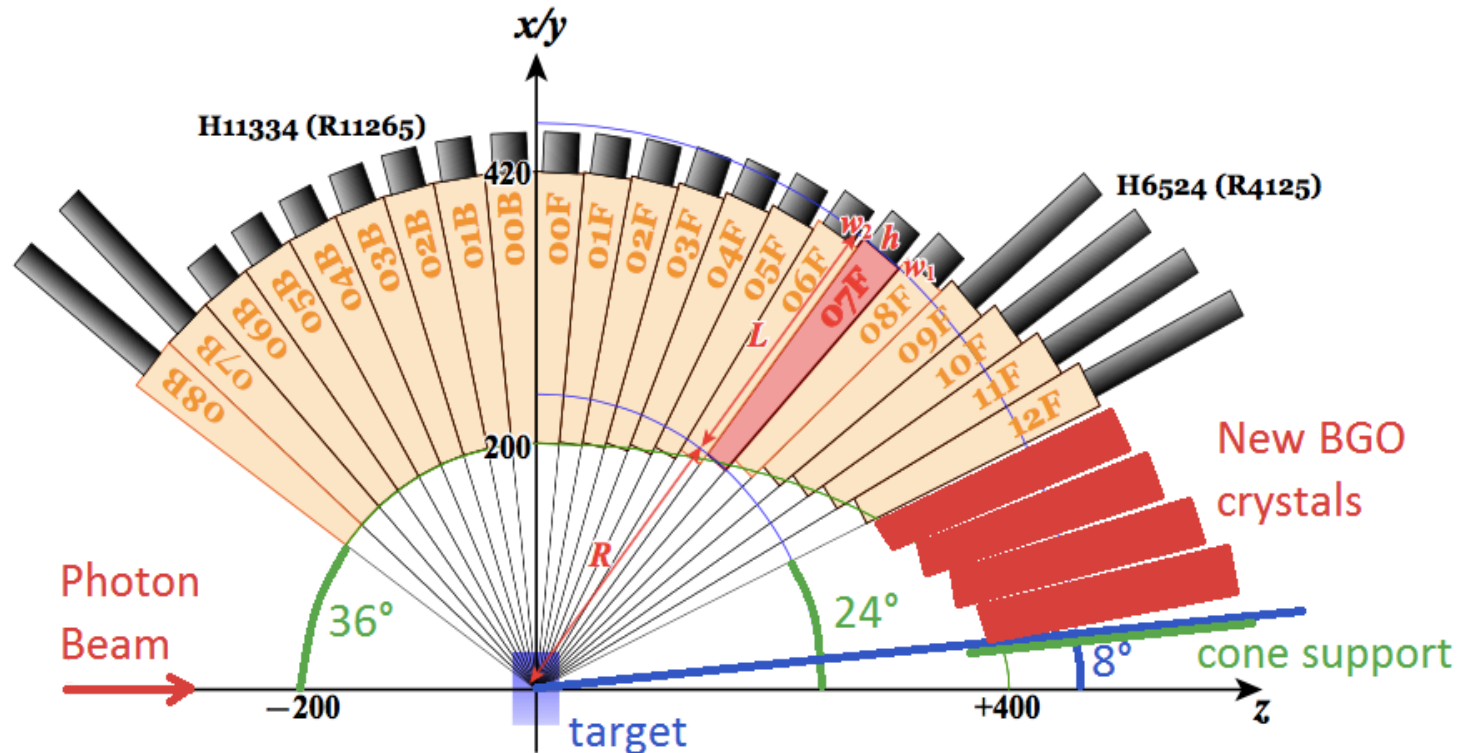
- Synchrotron radiation facility located in Hyogo prefecture, Japan.

BGOegg experiment



- N^* study, $\eta + N$ channel penta quark search
- Chiral symmetry restoration phenomenon for η' meson
- η' bound state search

BGOegg upgrade



- Add another 4 more layers (30 crystals each),



BGOegg upgrade



- We have 9 spare BGO crystals at ELPH, Tohoku university.(There are not existing another BGO crystals.)
- We test the MPPC using this spare crystals at Tohoku university.
- Before the experiment with MPPC and BGO crystals, we test the board for MPPC at SPring-8/LEPS



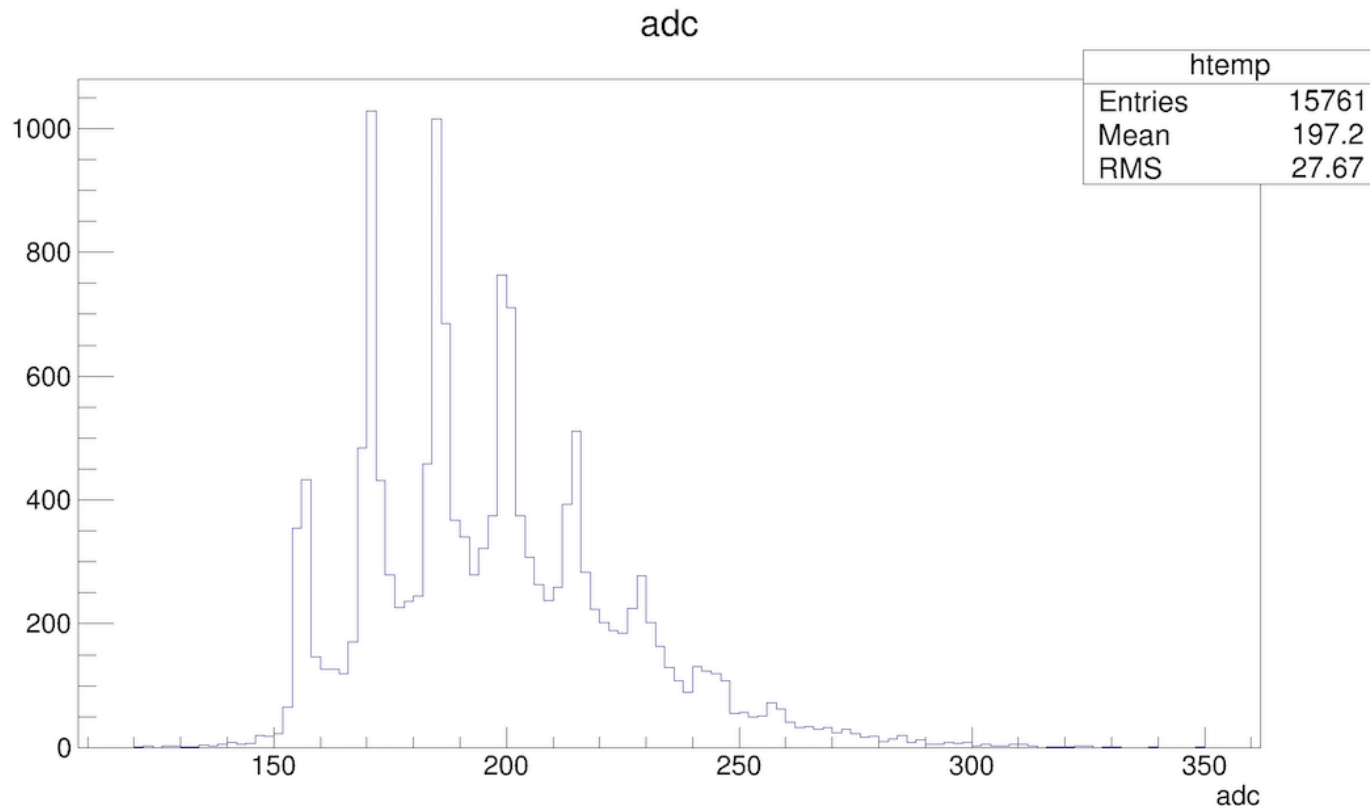
MPPC LED test at KU



- MPPC(S13360-6050cs, serial #10505)
- HV condition
 - $V_{op} = 56V$, $V_{bias} = \pm 5V$
- F.G. setting
 - freq : 100Hz, amp : 1.71V, width : 20ns,
- Inverting amplifier board

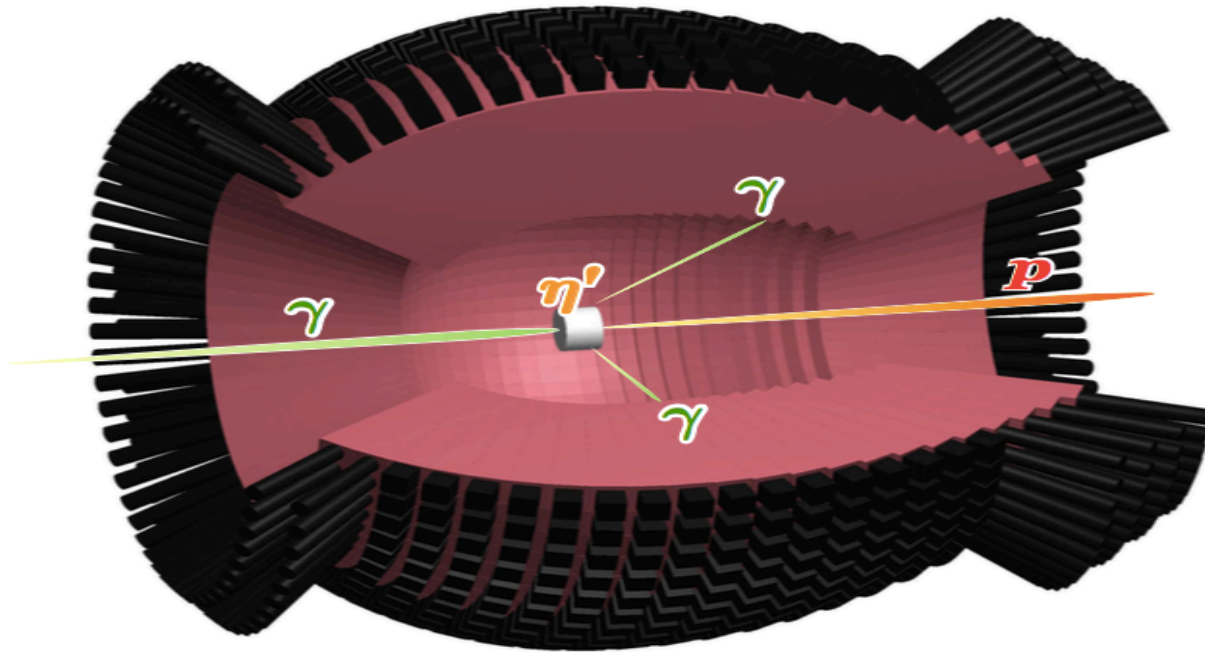


MPPC LED test at KU



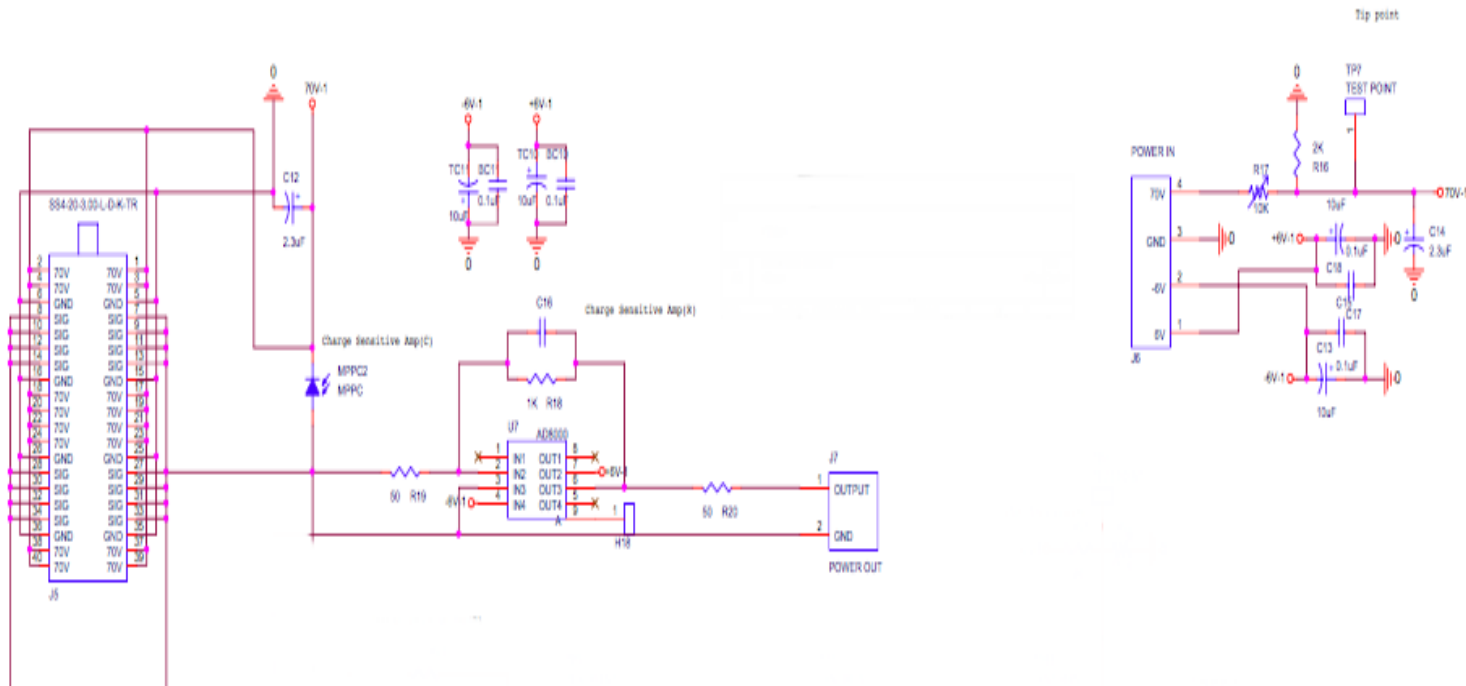
- ADC value for MPPC s13360-6050sc

Back up



- Schematic view of BGOegg
- 1320 BGO crystals, 22layers(60 crystals each)

Back up



- Inverting amplifier board