Resolution

- The resolution of the sensor was extracted from a Student's t-fit to the distribution of the residuals.
- The resolution of the telescope was extracted from data and simulation and has been subtracted for the plot.
- Charge collection in the columns adjacent to the stitching line is indistinguishable from the other columns.

IV measurements

- IV curves were measured for sensors on-chip in a climate chamber at an ambient temperature of -47°C.
- The breakdown voltage is higher than 600 V and was measured on 4 different sensors and for fluences of up to $1 \times 10^{16} \text{ neq.cm}^{-2}$.
- Per column efficiency in the stitching region shows no difference to the other columns for irradiated sensors.

Stitching

- Passive CMOS technology is promising in terms of cost and throughput.
- The performances of the sensors match the requirements for the HL-LHC Inner Tracker Upgrade and are comparable to established technologies.
- The characterized sensors are considered a candidate for the CMS Phase-2 upgrade.
- A new submission towards the final pixel module geometry and with increased breakdown voltage is ongoing.