

# Next Generation HV-MAPS for Future Detectors at Large Accelerator Facilities

Physikalisches Institut Heidelberg

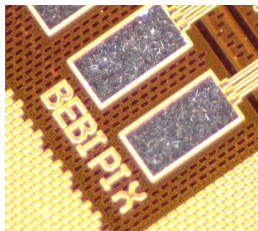
André Schöning, Heiko Augustin

## VertexPix

A HV-MAPS sensor in IHP130nm,  
utilizing SiGe-Bipolar transistors

- Continuation of 21-24 effort
- Finish characterisation of existing small scale prototypes
- Investigation of radiation tolerance

⇒ Development of the first fully monolithic small scale sensor



## Internal Gain Layer for HV-MAPS

Utilizing epitaxial wafers with a buried gain layer to further enhance HV-MAPS performance

- Feasibility proven in IHP130nm (L.Paolozzi)
- TCAD study to find suitable epitaxial structures
- Produce a known sensor on the new wafers
- Investigate its performance gain

