

# Silicon Photonics for Future Tracking Detectors

- Wavelength division multiplexing (WDM) for higher bandwidth per fiber
- Electrooptic modulators with external lasers
- Ring-resonator modulators (RM) made of silicon
- SiGe driver ASIC
- Interconnection technologies and fiber-chip coupling

## WP3.2: Optical data transmission

- Development of
  - 4-channel RM-WDM system (4x25 Gb/s)
  - SiGe driver ASIC
  - Interconnection technologies (TSVs)

## WP3.6: Radiation hardness and simulations

- Radiation effects on SiGe HBTs and FETs, as well as on silicon photonic RMs
  - First irradiations started

