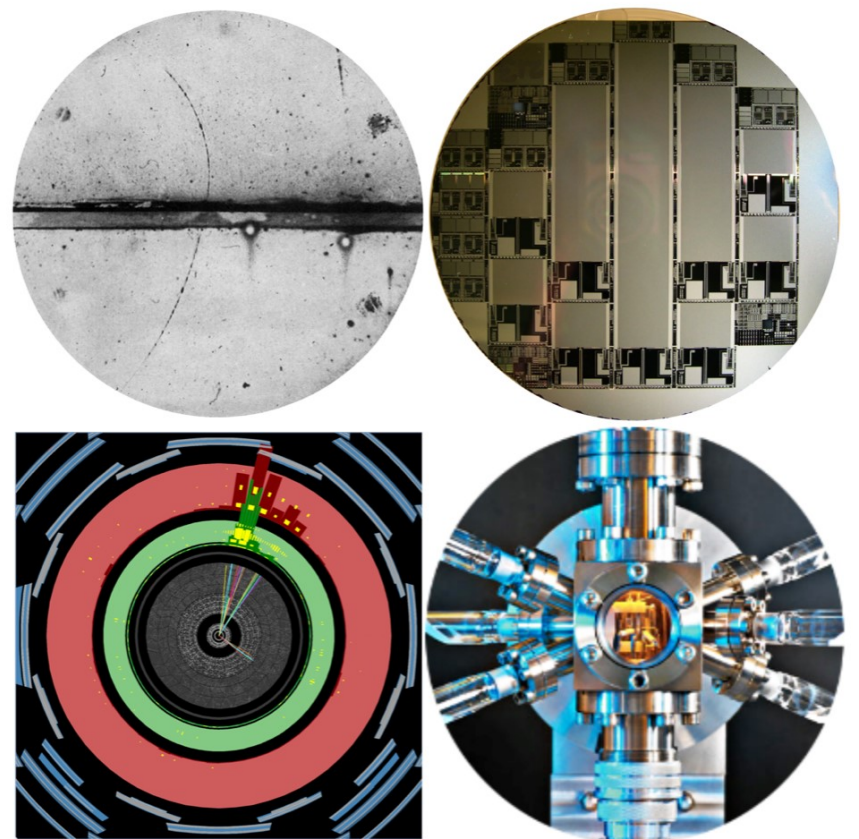


# Particle Detectors and the Path to Discovery.

**Tuesday, 10 March, 2020, DESY Auditorium, 16:45 h**

## Steve Worm (DESY)

The development of precision particle detectors has allowed physicists to investigate phenomena at unprecedented scales and with ever-increasing precision. Detectors have driven advancement in the sciences, for example in particle physics where searches for Dark Matter and the discovery of the Higgs particle depend critically on innovative instrumentation. With successive technological innovations, physicists gain new insight and are able to investigate nature and the structure of matter with increasing clarity. Detection technologies based on silicon imaging are one of the latest revolutions, with capabilities that are developing quickly as a result of the connection to industry and commercial electronics. In the talk I will explore this rapidly evolving silicon detector technology with an emphasis on Monolithic Active Pixels (MAPs), and discuss implications for the search for Dark Matter and opportunities for other fields of science. The colloquium will provide a survey of some of the latest detector innovations, and will look at possible paths for innovation in the future such as the revolution in quantum sensing.



- **Coffee, tea and cookies will be served at 16:30h**
- **After the colloquium there is a chance for private discussions with the speaker over drinks and pretzels**