Introduction

Advantage of CCD for tracking device

- **2 dimensional: pixel detector**
  unambiguous reconstruction/high granularity
- **Thin detector $\leftarrow$ extremely low capacitance**
  less multiple scattering
- **Serial readout**
  small number of channels
- **Continuously sensitive**
  no intrinsic limitation as regards trig. rate
- **Other R&D**
  driven by commercial interest (video)
  as well as X-ray astronomer, etc.

Vertex detector application in future LC

- low repetition rate $\sim$150Hz $\leftrightarrow$ serial readout
- highly collimated jets $\leftrightarrow$ pixel detector
- backgrounds $\leftrightarrow$ pixel detector

Operation at room temperature ($\sim 0^{\circ}$C) $\Rightarrow$ compact cooling system

- to reduce material
- to keep mechanically stable
- to avoid interference with the beam monitor