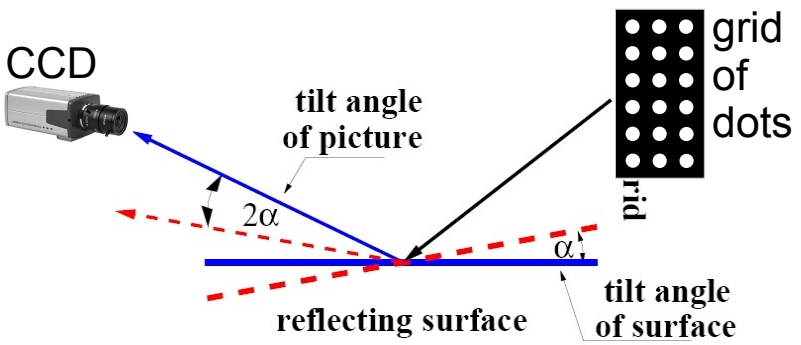
Optical surface deformation measurements



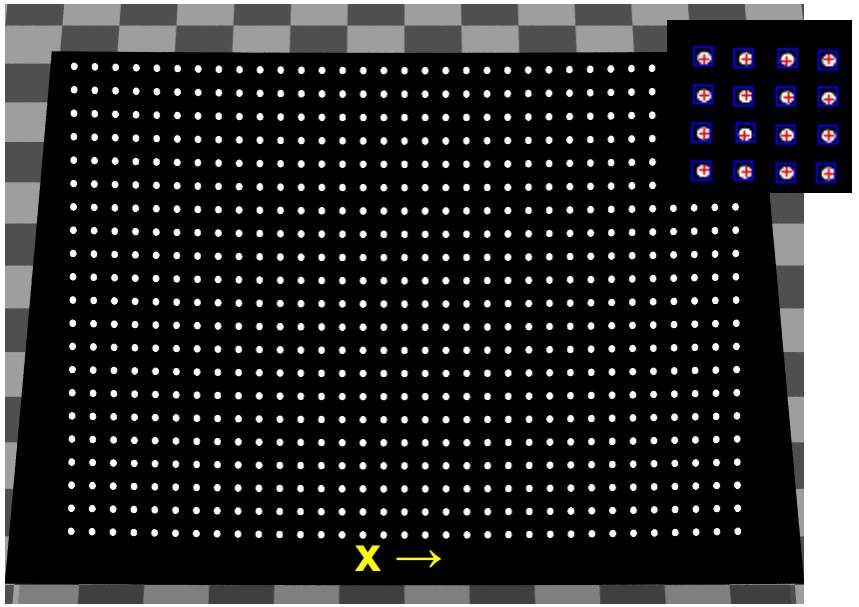
Working principle -

- A grid of dots is reflected by the surface
- Reflected dots observed by CCD
- change in slope of surface element results in movement of reflected dots on CCD

→ full 3D surface reconstruction @ **10 µm**
(relative to a reference state, e.g. 20ºC)

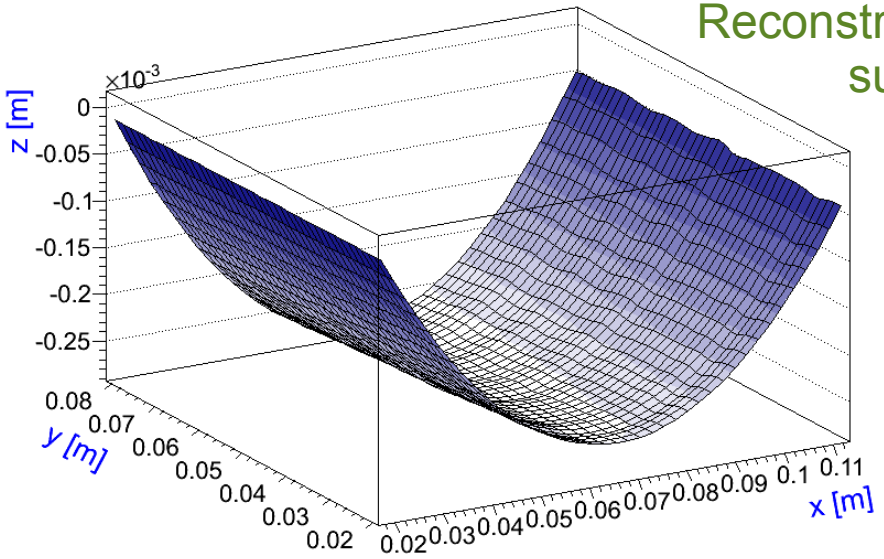
Currently under development -

- using a raytracer (POVRay) for realistic optical simulation of reflection patterns



Simulated wafer with **300 µm** bend along x

Reconstructed surface



- develop reconstruction algorithms using simulated images to find optimum geometry

→ finally, install the hardware
(estimated ~ end of 2010)