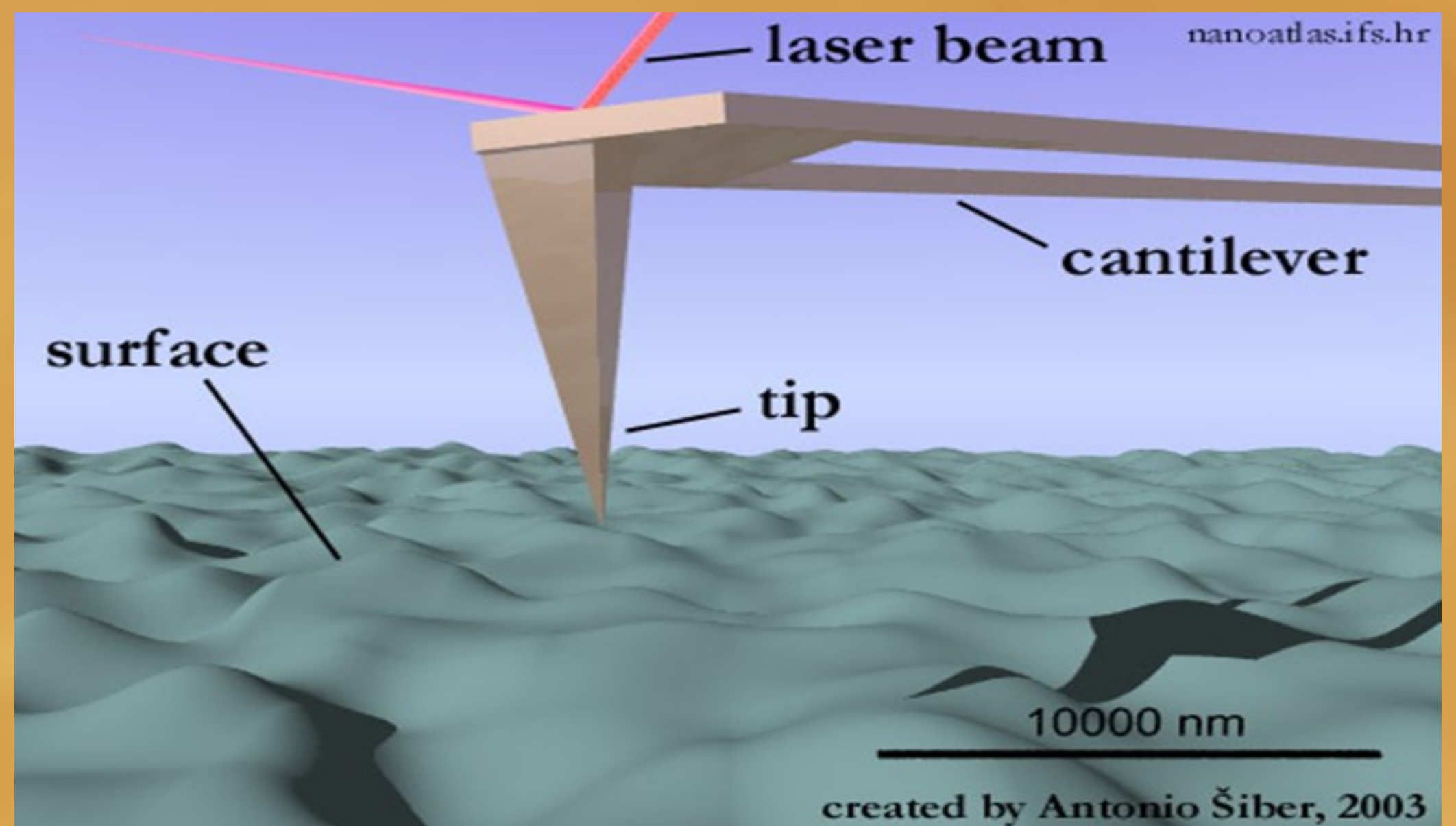




# ATOMIC FORCE MICROSCOPY

*Atomic Force Microscope (AFM) was pioneered in 1986 by Nobel Prize Winner Gerd Binnig along with Calvin Quate and Christoph Gerber. It provides three dimensional topographic information about a sample by probing its surface structure with a very sharp tip. The tip is scanned laterally across the surface, and the vertical movements of the tip are recorded and used to construct a quantitative 3-D topographic map.*



## Applications

- High-resolution surface profilometry
- Surface roughness measurements
- Pit analysis for optical disk storage media
- Semiconductor device structural analysis
- Surface cleaning and polishing studies
- Phase separation in polymers
- Magnetic domain and surface roughness analysis for computer hard-disks
- Investigation of local mechanical properties (stiffness, adhesion, friction)
- Micro structural studies of metallic ceramic, semiconducting and polymeric materials
- High-resolution imaging of biological samples
- Studies of Nano-scale forces

