



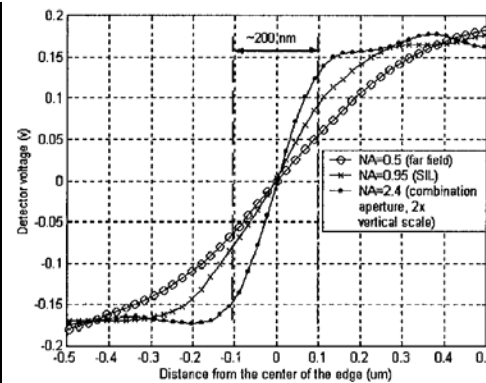
# Optical Data Storage

College of Optical Sciences/University of Arizona  
Tucson, Arizona

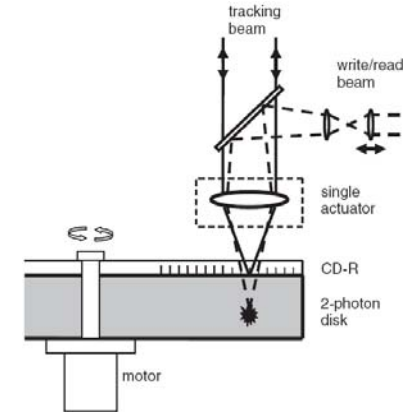
## Description and Objective

*Description:* Investigate future generation optical data storage systems, secure data destruction and data recovery.

*Objective:* Develop relevant technologies for 4<sup>th</sup> generation optical data storage and beyond. Center of excellence for secure data erasure and data recovery on optical media.



High-NA (2.4) Readout



Master/Slave Servo for Volumetric Media



## Approach

Analyze key concepts through simulation and proof-of-principle experiments.

Evaluate new media and technologies with static and dynamic testing

Use engineering skills to develop and maintain testing and erasure equipment for support of secure erasure studies.

## Accomplishments and Plans

Leading investigator in optical data storage for twenty years. Topics include: magneto-optic media readout using super resolution, various tracking and focus servo schemes, quadrant pupil detection, 2P volumetric media characterization and test stand development, application of solid immersion lens technology.

Developed world's first instrument dedicated to recovering data from damaged and broken optical disks.

Developing test stand for Blu-Ray erasure testing and data recovery.