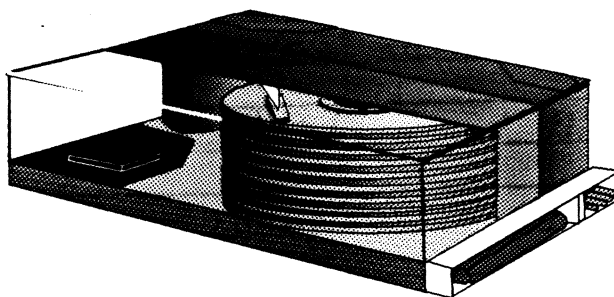


# Almaden Research Center and Advanced Storage Roadmap

Dr. John S. Best

Director of Storage Systems and Technology  
IBM Research Division

Director of Advanced Technology  
IBM Storage Systems Division



**IBM**

Almaden Research Center  
San Jose, CA

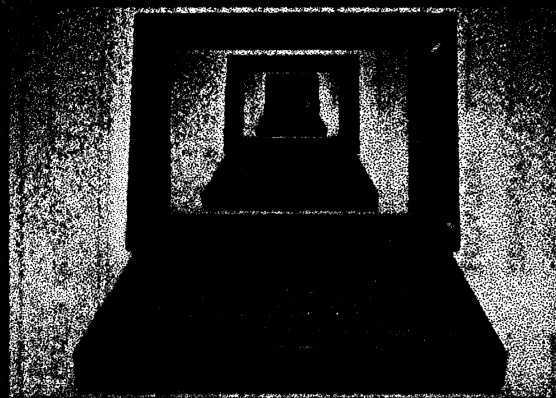
# Almaden Research

*Disk  
Drive  
MR Head  
No-ID*



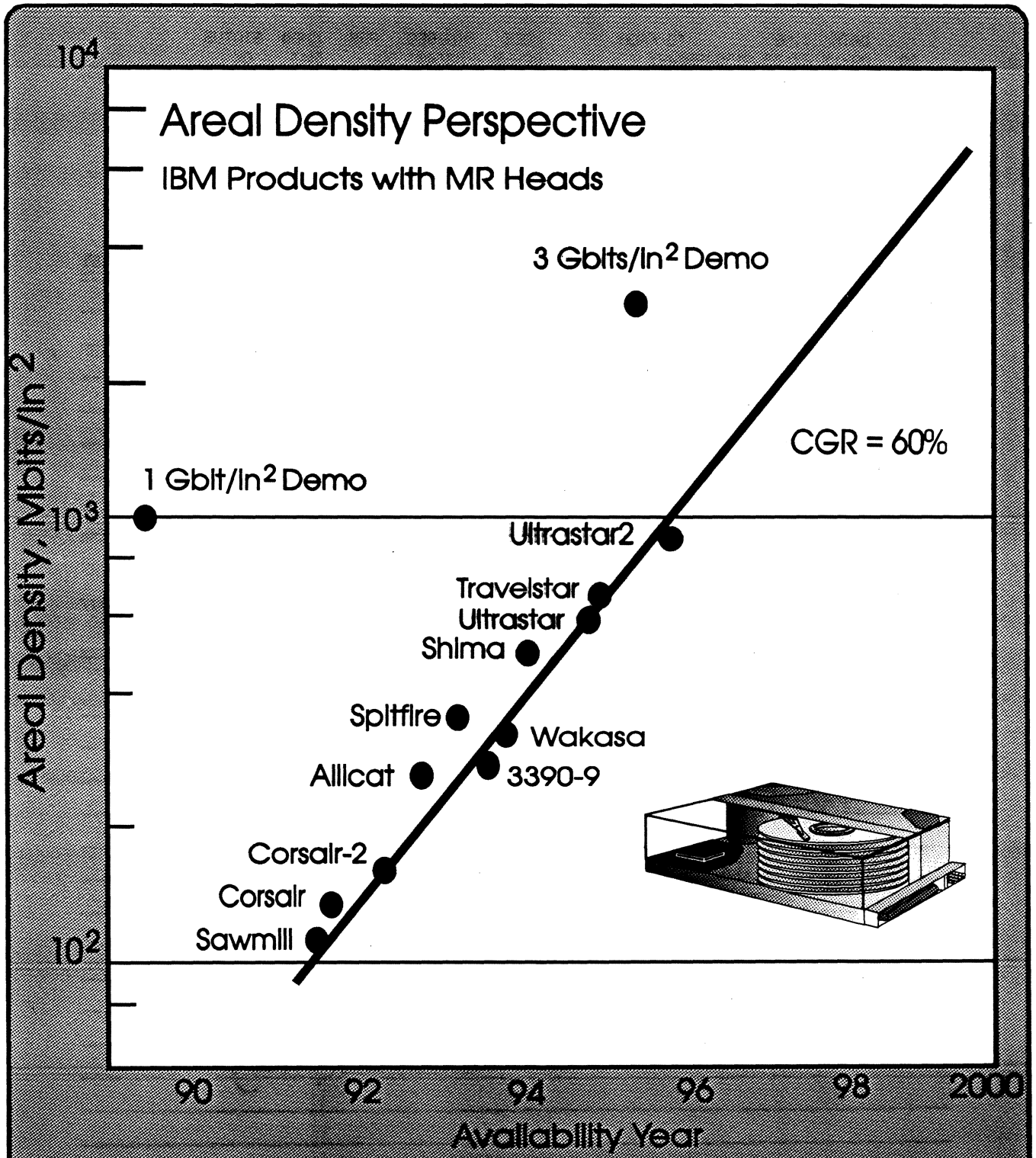
*ThinkPad  
TrackPoint*

*GMR  
New Materials  
Atom Manipulation*

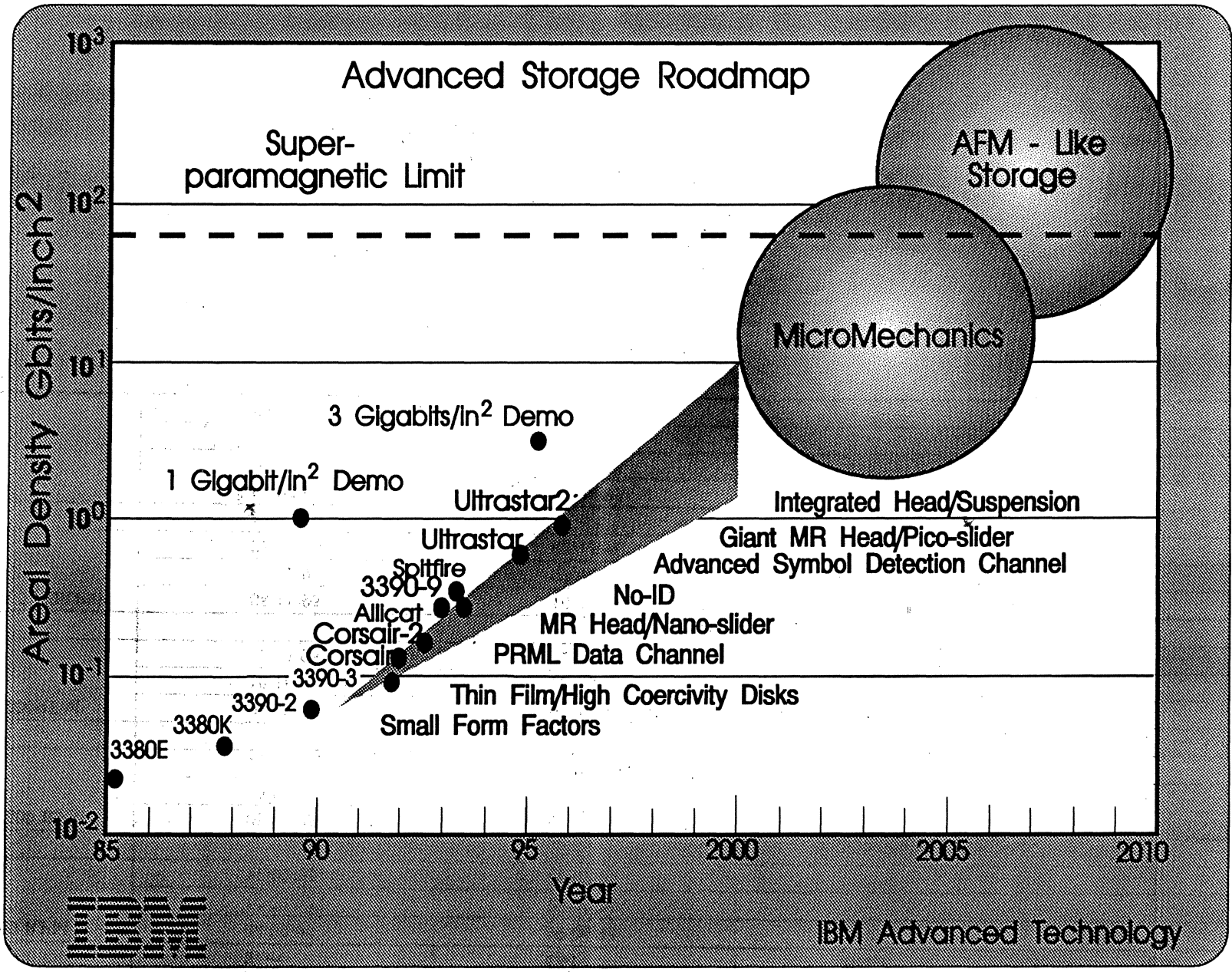


*QBIC  
Data Mining  
Digital Libraries  
Relational  
Database*

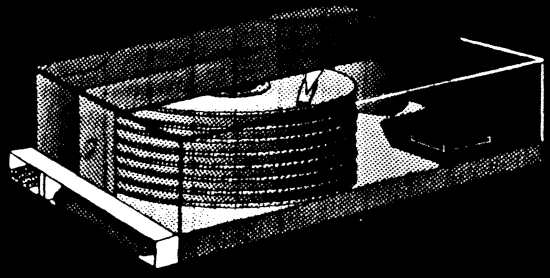
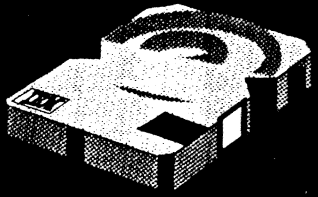
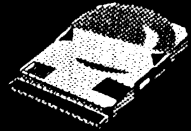


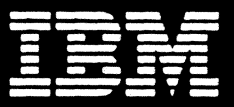


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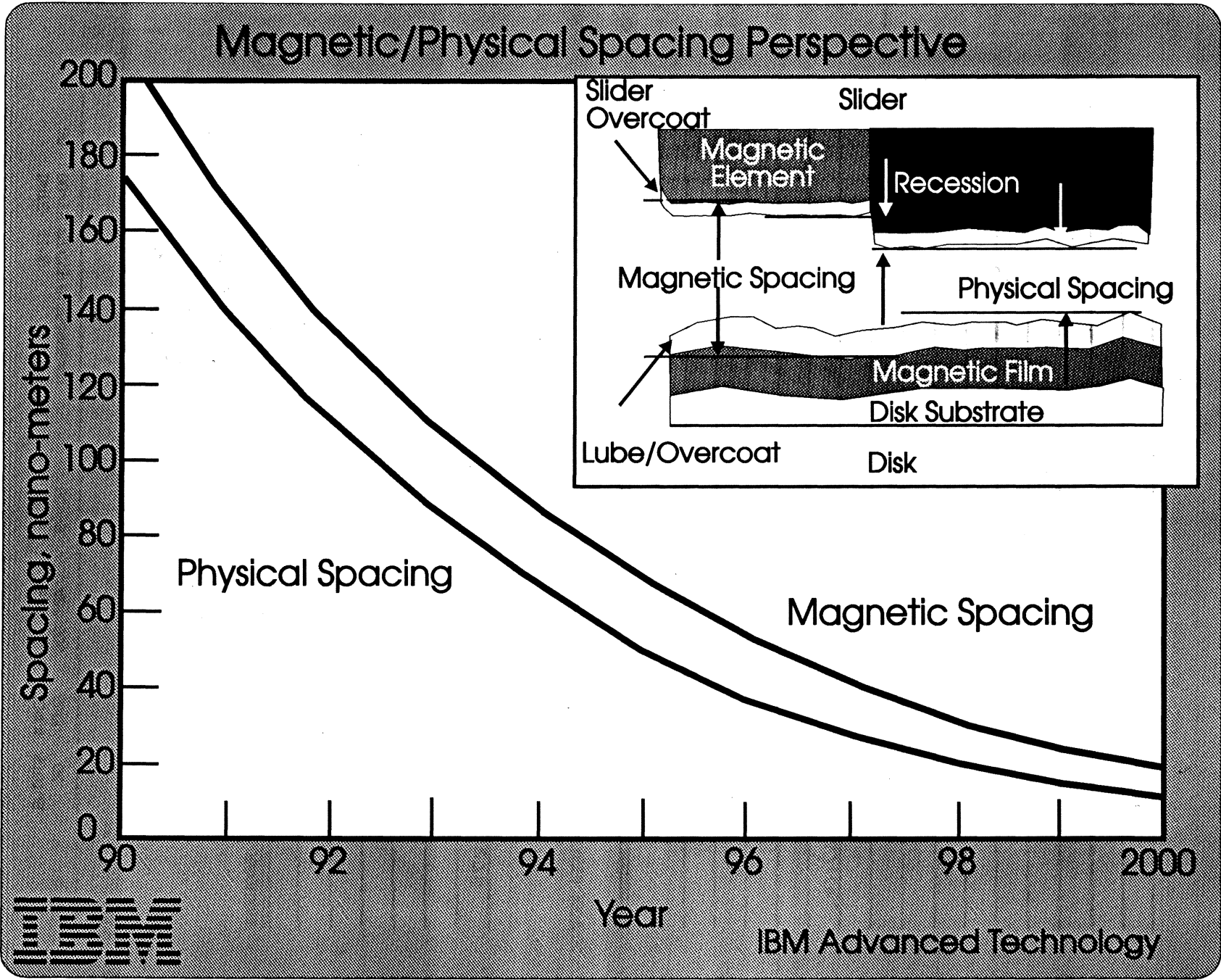


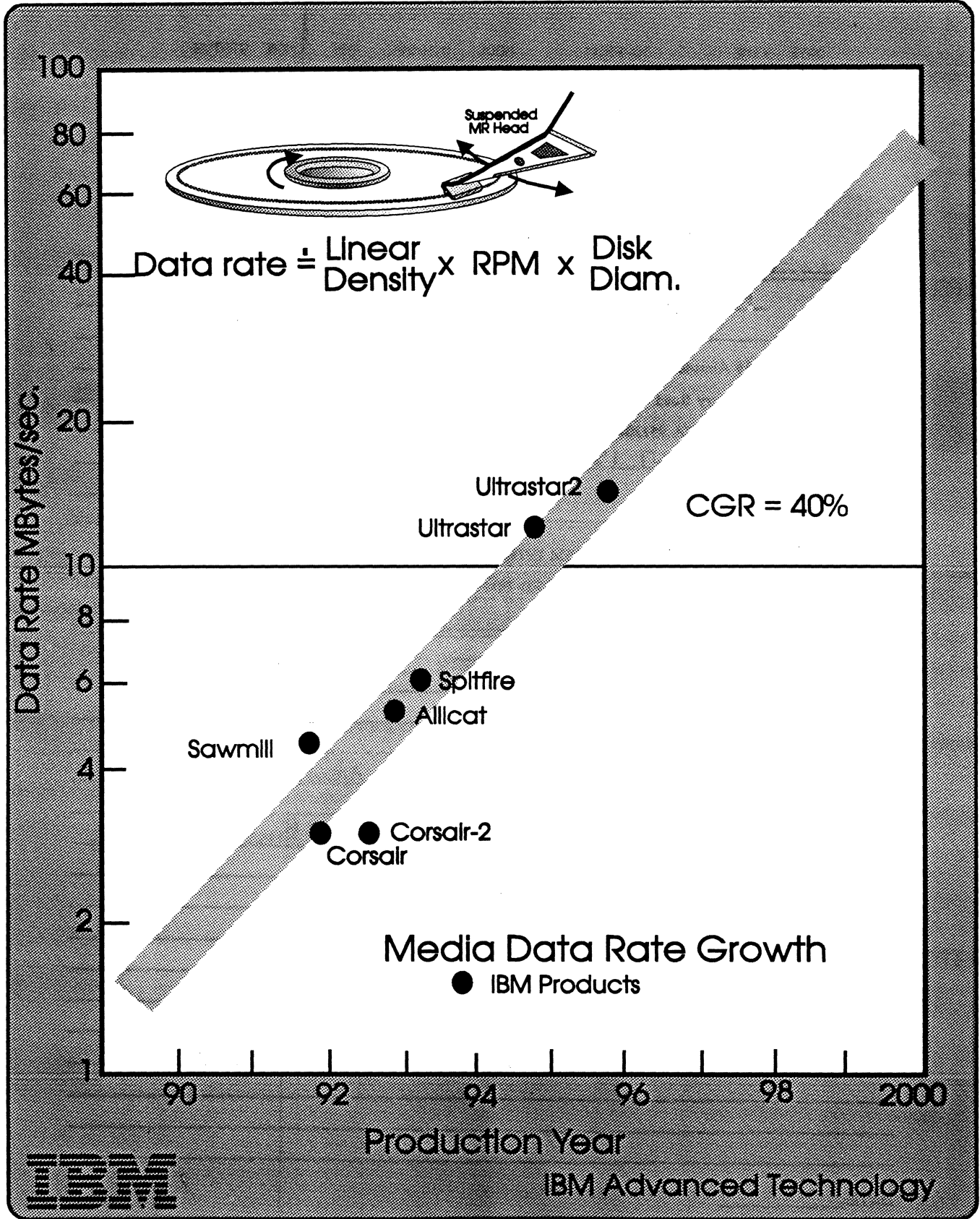
# HDD Capacity Projection

	1995	2000
 3.5 Inch HDD	8.5 GB	90 GB
 2.5 Inch HDD	1.2 GB	10 GB
 1.8 Inch HDD	260 MB	3.4 GB

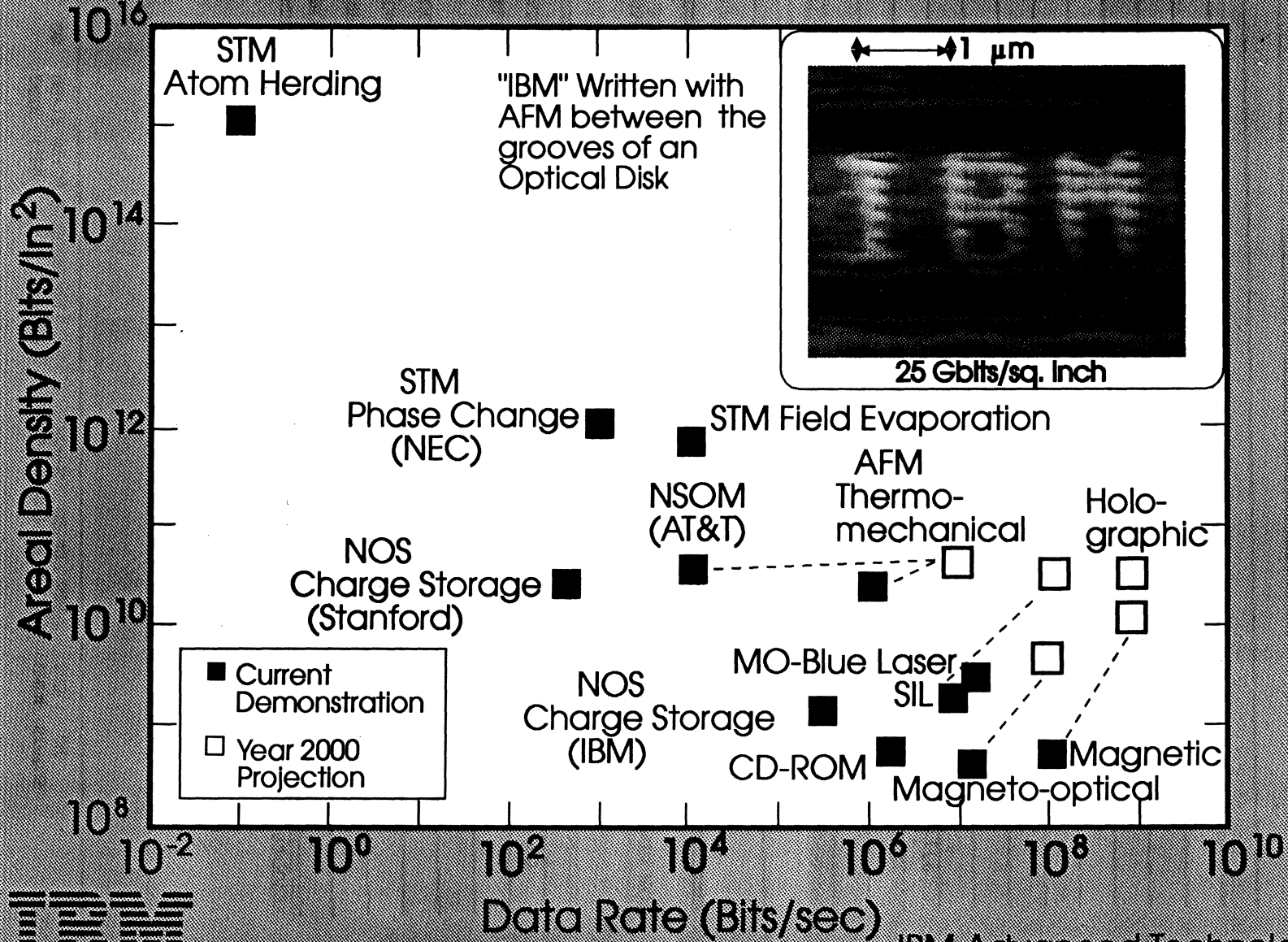


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# Approaches to High Density Recording



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Areal Density, Mbits/in<sup>2</sup>

