

## Publikationen 1993

### **U. Hartmann**

FUNDAMENTALS AND SPECIAL APPLICATIONS OF NON-CONTACT SCANNING FORCE MICROSCOPY

*Advances in Electronics and Electron Physics* **87**, 49 (1993)

### **G. Matteucci, M. Muccini, and U. Hartmann**

STUDY OF THE LEAKAGE FIELD OF MAGNETIC FORCE MICROSCOPE SENSOR TIPS BY ELECTRON HOLOGRAPHY

Electron holography is applied to the investigation of the leakage magnetic field produced by sharp ferromagnetic probes employed for magnetic force microscopy. Using the double exposure technique, interference fringes were obtained which show a good qualitative agreement with calculations based on a macroscopic dipole model for the sensor tips. Magnetic flux measurements are possible through the evaluation of the phase difference in the simulated map of the dipole field.

*Appl. Phys. Lett.* **62**, 1839 (1993)

### **U. Hartmann**

MAGNETOKRAFT- UND MAGNETOTUNNELMIKROSKOPIE

24. KFA/IFF-Ferienkurs über "Magnetismus von Festkörpern und Grenzflächen",  
Vorlesungsmanuskripte der Ferienkurse des Forschungszentrums Jülich, 1993

### **U. Hartmann, T. Drechsler and C. Heiden**

SOME PROBLEMS IN SCANNING PROBE MICROSCOPY OF VORTICES IN SUPERCONDUCTORS

*Proc. SPIE Conference, Los Angeles, USA, 1993; SPIE Conf. Proc. 1855, 140 (1993)*

### **U. Hartmann**

MIKROSKOPIE UND MANIPULATION AUF ATOMARER SKALA

*Handelsblatt* **21**, 3.6.1993