



Superconducting Magnet Division

Magnet Note

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Title: Magnetic Field Measurement and Mapping Techniques

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Magnetic Field Measurement and Mapping Techniques

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This magnet division note is a compilation of slides shown in a series of five lectures on magnetic measurement techniques at CERN during April 7-11, 2003. These lectures were delivered under the CERN Academic Training Program. The slides, as well as the video recordings of all the five lectures, are also accessible from the CERN Academic Training lecture archives at:

http://webcast.cern.ch/home/pages/lecser_cds.php?prog_year=rlpr_2003

The various lectures covered the following topics:

Lecture 1: (a) [Introduction to the Lectures](#) (6 slides)

(b) [Overview of Magnetic Measurement Techniques](#) (29 slides)

Lecture 2: [Harmonic Description of 2-Dimensional Fields](#) (36 slides)

Lecture 3: [Harmonic Coils](#) (44 slides)

Lecture 4: [Determination of Magnetic Axis](#) (42 slides)

Lecture 5: (a) [Dynamic Effects in Superconducting Magnets](#) (29 slides)

(b) [Measurements as a Tool to Monitor Magnet Production](#) (22 slides)

The above slides can be viewed in PDF format using links in the electronic version of this note, accessible by following the “[Publications](#)” link on the Superconducting Magnet Division website (<http://www.bnl.gov/magnets/>).