Frequency Map Analysis Workshop

Thursday, 1 April 2004 - Friday, 2 April 2004

LURE (France)

Book of Abstracts

Contents

0

General Discussion

Author: Amor Nadji[1]

[1] *Synchrotron SOLEIL*

1

Conclusion Remarks

Discussions et Conclusions / 2

General Discusion (A. Nadji)

Discussions et Conclusions / 3

Conclusion Remarks (J-M. Filhol)

Model and Experiment (II) / 4

Refinements of the non-linear lattice model for the BESSYII storage ring (P. Kuske)

Model and Experiment (II) / 5

Global discussion on the importance of a very detailed model of the nonlinear fields

Model and Experiment (I) / 6

Comparison between simulation and experiment on injection beam loss in the SPring8 storage ring (H. Tanaka)

Model and Experiment (I) / 7

Analyzing combined space charge and lattice nonlinearities based on an experiment at the CERN PS (G. Franchetti)

Model and Experiment (I) / 8

Frequency Map Analysis and Hilbert Transform for experimental resonance investigation at Elettra (S. Di Mitri)

Model and Experiment (I) / 9

Discussions

Use of the FMA at the level design of a lattice / 10

Welcome and Introduction to the target of the workshop (A. Nadji)

Use of the FMA at the level design of a lattice / 11

Frequency Map Analysis (J. Laskar)

12

Guiding lines for computing and reading a Frequency Map and new FMA calculations for SOLEIL including Insertion Devices effects (L. Nadolski)

Author: Laurent Nadolski[1]

[1] *Synchrotron SOLEIL*

Corresponding Author: nadolski@synchrotron-soleil.fr

Use of the FMA at the level design of a lattice / 13

Discussions

Frequency Map Analysis / 14

FMA calculation for the ALS (D. Robin)

Frequency Map Analysis / 15

Frequency maps for designing proton accelerators (Y. Papaphilippou)

Frequency Map Analysis / 16

Role of the FMA in the choice of the working point of SOLEIL (M. Belgroune)

Frequency Map Analysis / 17

Discussions

Experimental Frequency maps / 18

FMA experiments at the ALS (D. Robin)

Experimental Frequency maps / 19

Measured and calculated frequency maps for the BESSYII storage ring (P. Kuske)

Experimental Frequency maps / 20

Recent experimental Frequency maps at Bessy II and SLS (M. Belgroune)

Experimental Frequency maps / 21

Discussions

Experimental Frequency maps / **22**

Experimental Frequency Maps for the ESRF Storage Ring (Y. Papaphilippou)

Diagnostics and technical details of the measurements / **23**

Description of the experimental set up at ESRF (L. Farvacque)

Diagnostics and technical details of the measurements / **24**

Description of the experimental set up at the SLS (M. Munoz)

Diagnostics and technical details of the measurements / **25**

Discussions

Model and Measurement (II) / **26**

Nonlinear correction steering of the LHC using Harmonic analysis (F. Schmidt)

Model and Measurement (II) / **27**

Studies on lattice calibration with frequency analysis of betatron oscillations (R. Bartolini)

Model and Measurement (II) / **28**

Discussions