

Fundamentals of Particle Accelerator, Design and Construction

Institute for Research in Fundamental Sciences

October 11-12, 2023 (Mehr 19-20, 1402)

Day 1, October 11

8.45-16.30

Welcome Speech

8.45-9.00

Dr. Farhad Ardalan, IPM.

Accelerator Physics from the Beginning to the Current Status

9.00-10.20

Dr. Mohsen Dayyani Kelisani, IPM.

Break

20 min

Theory and Design of Charged Particle Beams

10.40-12.00

Dr. Ahmad Mashal, ILSF.

Lunch

12.00-13.30

Introduction to Magnet Design in Accelerator Machines

13.30-14.50

Dr. Farhad Saeedi, ILSF.

Break

20 min

RF Engineering and Cavity Beam Interactions

15.10-16.30

Dr. Arash Sadeghipanah, ILSF.

Day 2, October 12

9.00-16.30

Introduction to Ultra-High Vacuum Systems in Accelerator Machines

9.00-10.20

Dr. Hossein Karimi, ILSF.

Break

20 min

Synchrotron Radiation; Production and Applications

10.40-12.00

Dr. Ehsan Salimi, ILSF.

Lunch

12.00-13.30

Plasma Wakefield Acceleration, a Promising Path to the Next Generation of Accelerators

13.30-14.50

Dr. Sahar Barzegar, University of Tehran & IPM.

Break

20 min

ILSF Visit

15.10-16.30