

AT Manual

July 23, 2013

Abstract

We give an overview for the AT code and describe how the functions and repository fit into this.

1 Introduction

2 Lattice Creation

The element creation functions are the following:

1. atmultipole
2. atquadrupole
3. atrbend
4. atsbend
5. atsextupole
6. atwiggler
7. idtable

3 Pass Methods

1. BndMPoleSymplectic4E2Pass
2. BndMPoleSymplectic4E2RadPass
3. BndMPoleSymplectic4Pass
4. BndMPoleSymplectic4RadPass
5. BendLinearPass
6. CavityPass

- 7. CorrectorPass
- 8. DriftPass
- 9. QuadLinearPass
- 10. QuadMPoleFringePass
- 11. StrMPoleSymplectic4Pass
- 12. StrMPoleSymplectic4RadPass
- 13. ThinMPolePass
- 14. WiggLinearPass
- 15. IDTablePass

4 Lattice Manipulation

5 Tracking Particles plus Moments

6 Lattice Functions

7 Visualization

8 AT within a larger context: Other Codes, Matlab Middle Layer

References

- [1] A. Terebilo *Accelerator Toolbox for Matlab*, SLAC-PUB 8732 (May 2001)