

PIC1D

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1 Introduction

PIC1D is a plasma simulator. Plasmas are the 4th state of matter, the state which is energetically above a gas. When a gas becomes so hot that its electrons free themselves from their ions, the resulting sea of free electrons and ions is called a plasma.

2 Methods

In this chapter we will discuss the methods used in plasma to achieve the over-all simulation. Plasma simulation can be summarised by 3 computational components; time-‘integration’ of the equations of motion of the particles, integration of the electric and magnetic fields, and weighting.

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