PICModel

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c: Configuration
d: ParticleData

init()
time_step()
run()
```

ParticleData

```
x_i, vx_i, vy_i: Array(N)
ke_hist: Array(Nt)
fe_hist: Array(Nt)
p_hist: Array(Nt)
x_hist: Array(N, Nh)
vx_hist: Array(N, Nh)
vy_hist: Array(N, Nh)
ex_hist: Array(M, Nh)
ey_hist: Array(M, Nh)
rho_hist: Array(M, Nh)
```

Configuration

```
N, M: int
x_max, x_min: float
dt, t_max: float
qm, wp, eps0, wc: float
weighting_order: int
max_history_steps: int

initial_x: Array(N)
initial_vx: Array(N)
initial_vy: Array(N)

set_initial_conditions()
```