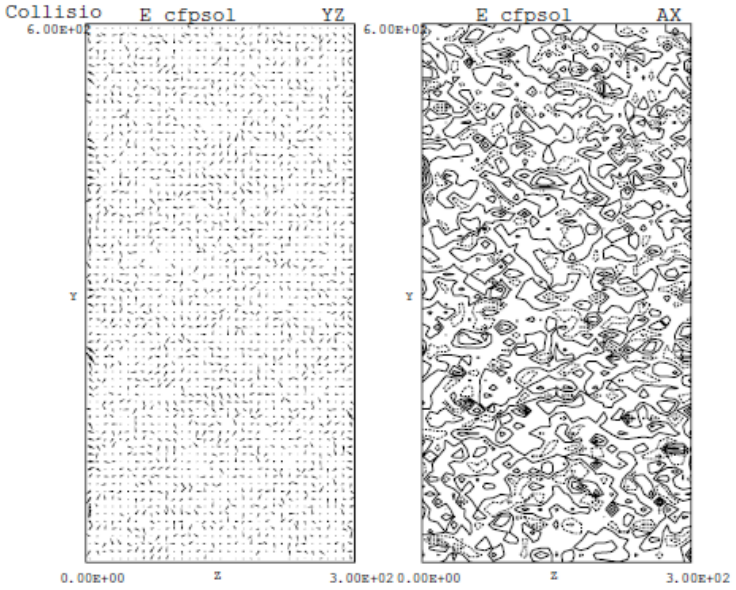
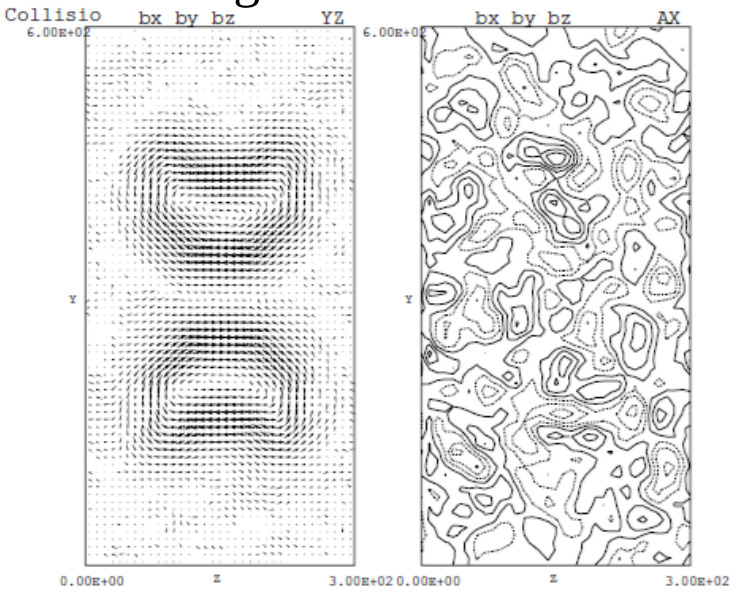
Macro-particle Electromagnetic Simulation (*Tanaka, JCP 1995*)

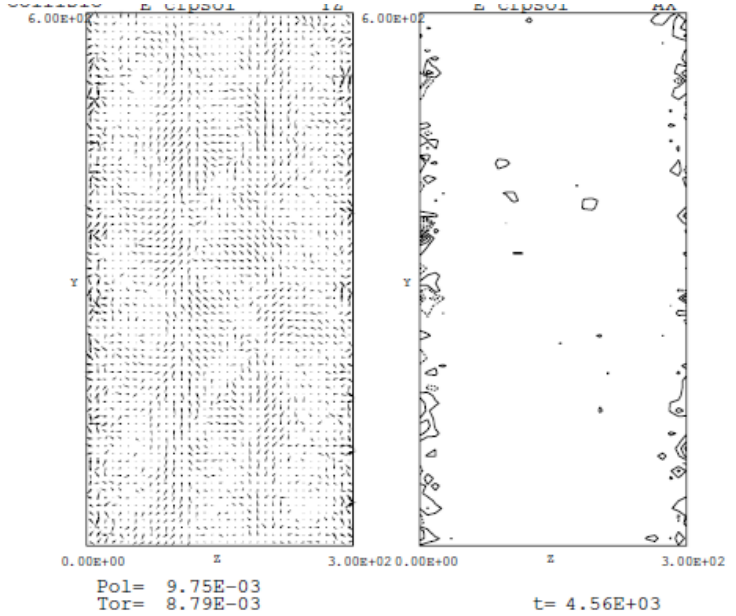
Electric field

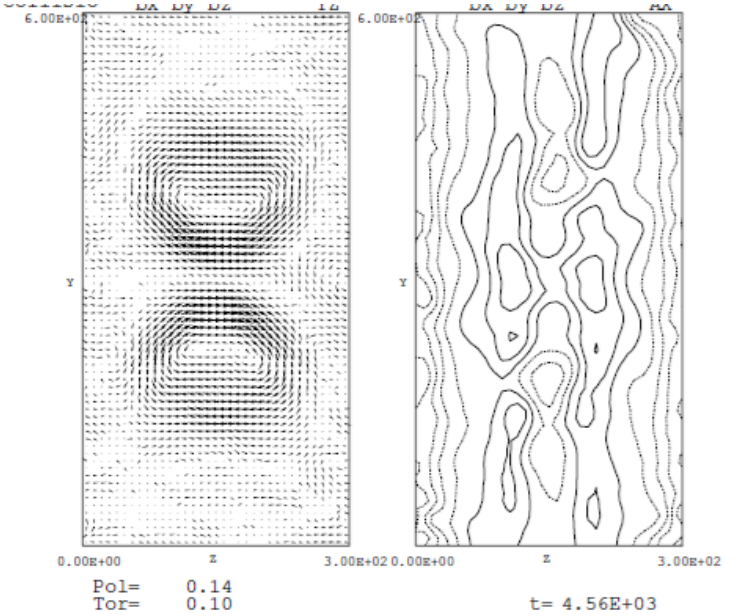
Magnetic field





t=250



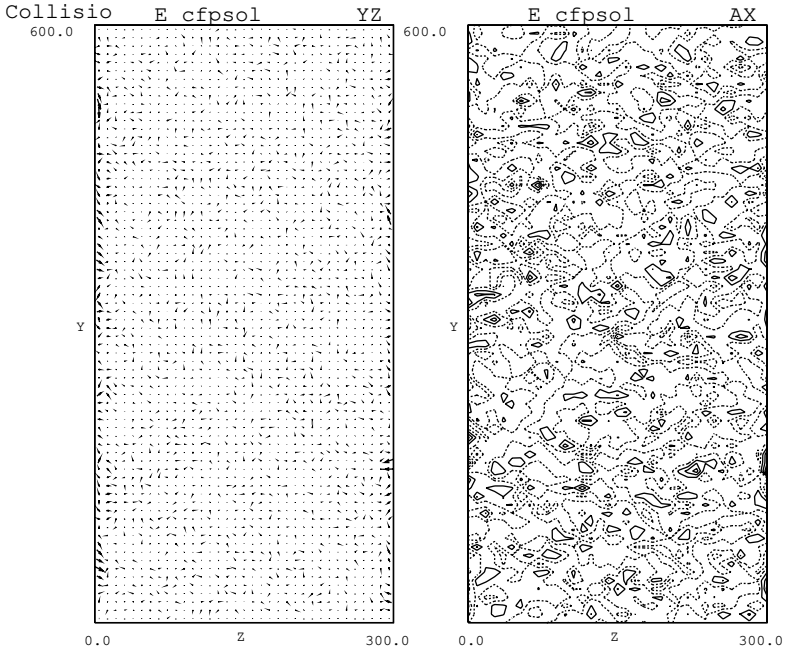


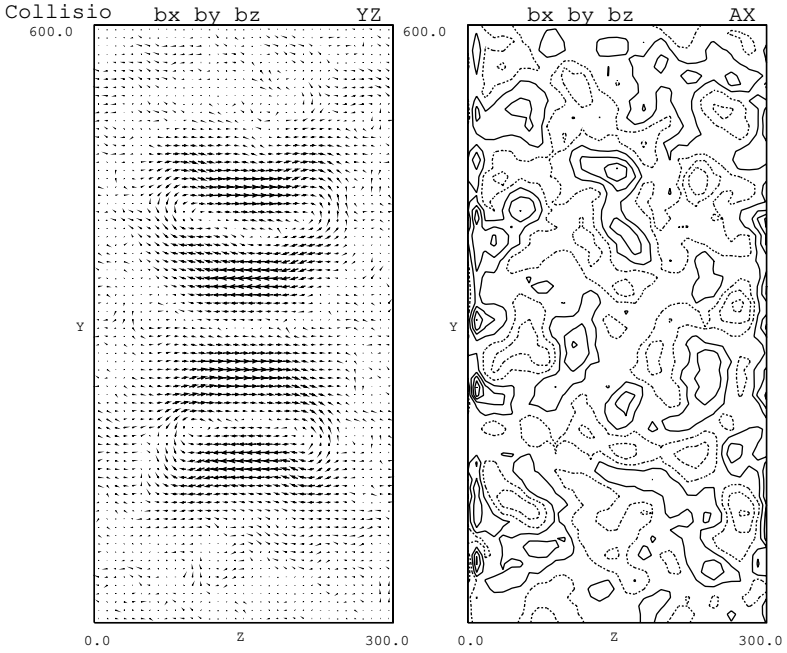
t=4500

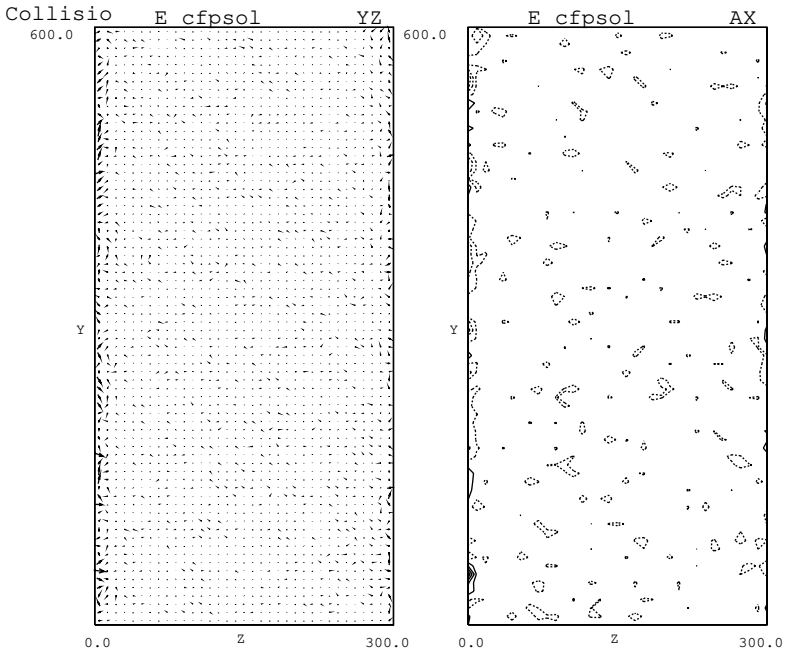
****
Twin Flux Bundles

kstart=0,tfinal=5000.d0,cptot=200.1d0
System: 300x600x300 c/wpe
Time step: dt=1.2
wspec(1)=100.d0,wspec(2)=1.d0
qspec(1)=1.0d0,qspec(2)=-1.0d0
vbeam(1)=0.45d-2,vbeam(2)=-0.45d-2
wce_by_wpe=0.2,te_by_ti=1.0
Ez0=2.5d-3
aimpl=0.6d0
****

https://github.com/Mtanaka77/
Macro-particle Simulation for Magnetic Reconnection
Date: Nov.13, 2024

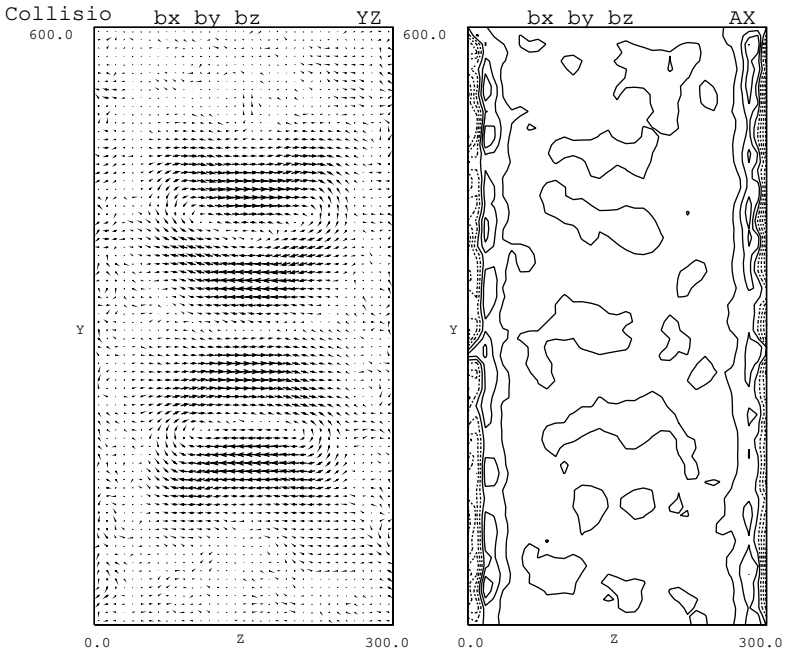






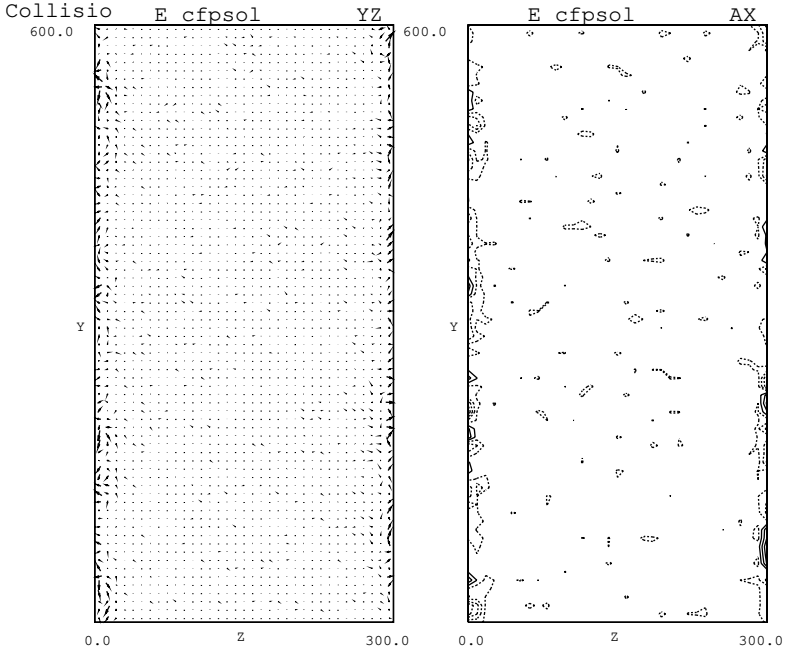
Pol= 1.76E-02
Tor= 9.25E-03

t= 900.0



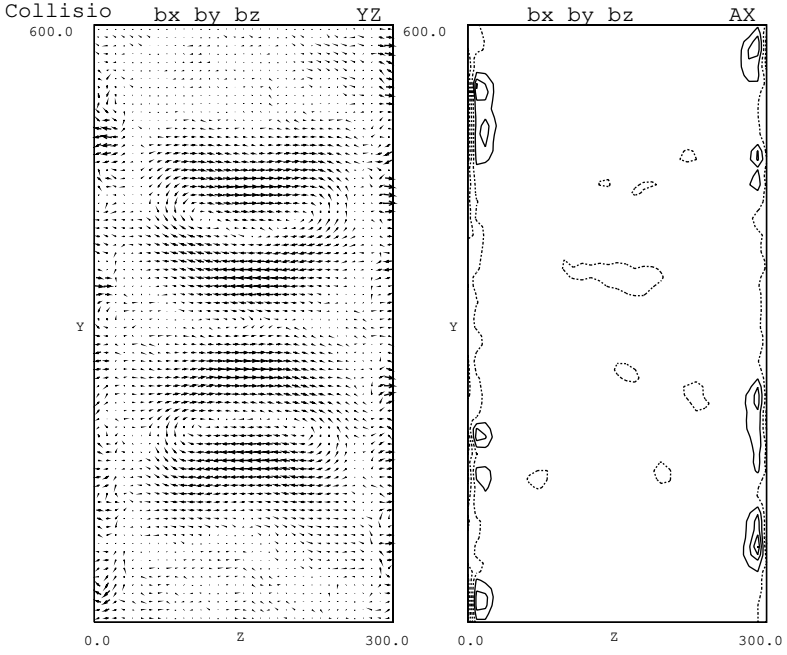
Pol= 7.90E-02
Tor= 5.29E-02

t= 900.0



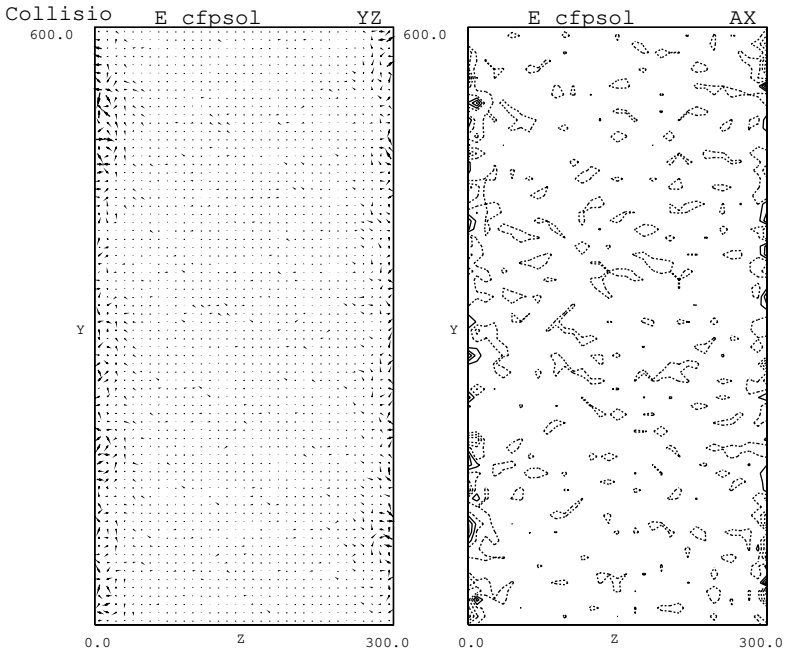
Pol= 3.06E-02
Tor= 1.55E-02

t=1200.0



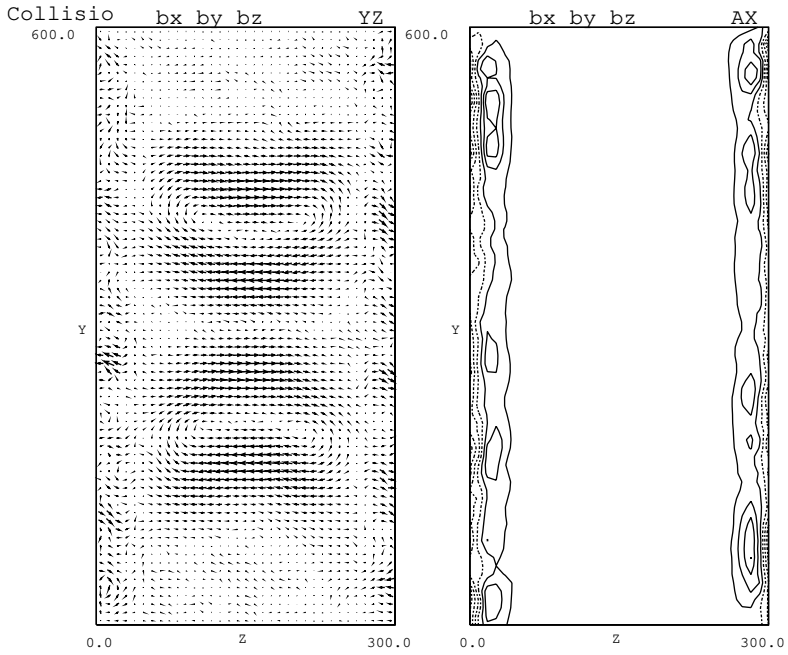
Pol= 9.55E-02
Tor= 1.53E-01

t=1200.0



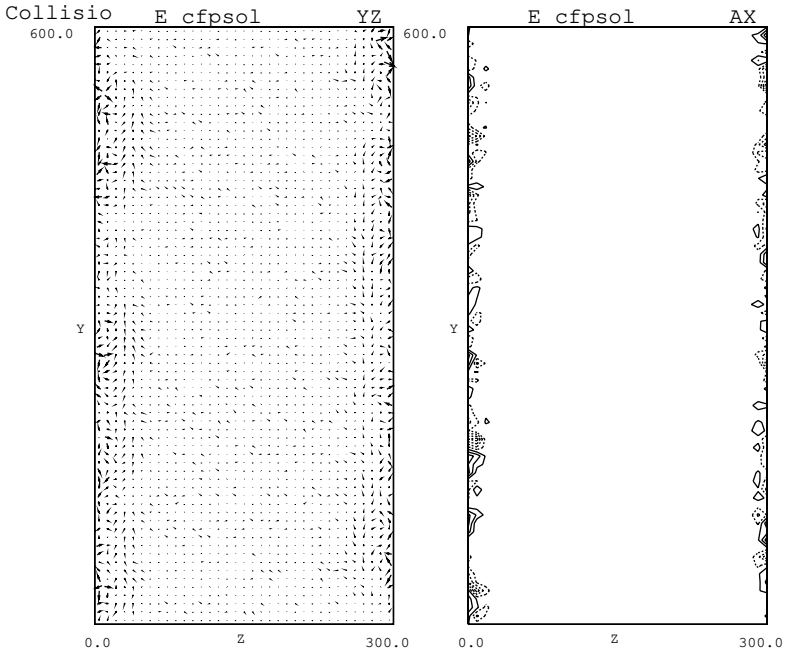
Pol= 3.01E-02
Tor= 1.23E-02

t=1500.0



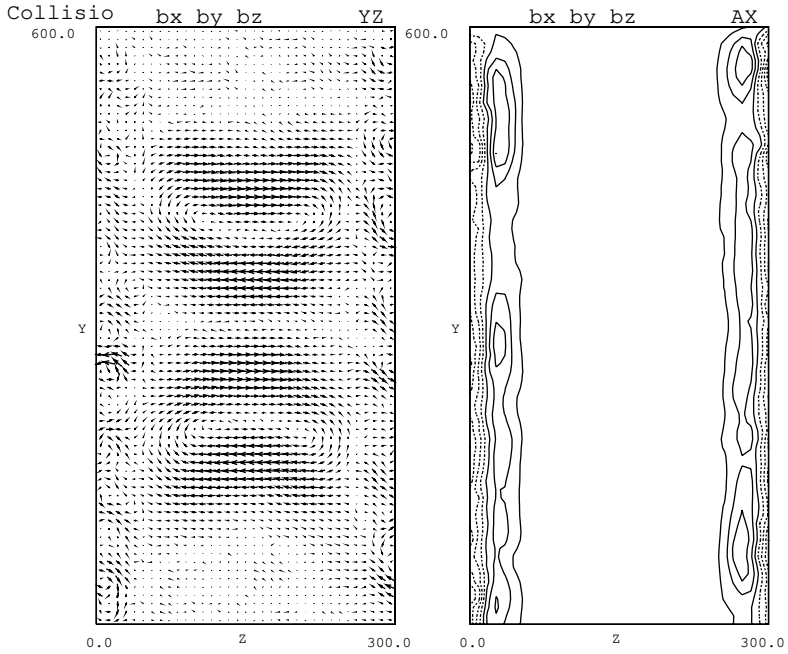
Pol= 8.59E-02
Tor= 1.46E-01

t=1500.0



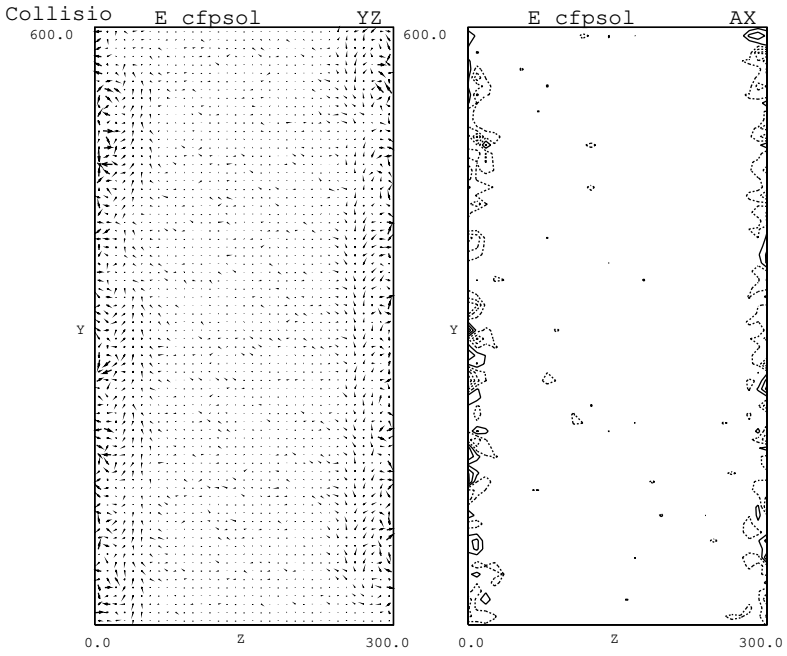
Pol= 2.01E-02
Tor= 1.24E-02

t=1800.0



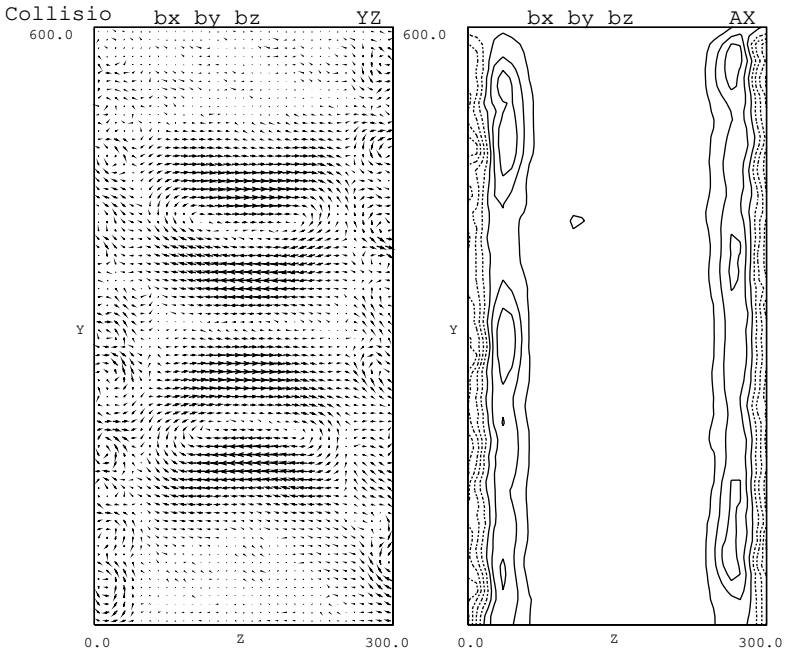
Pol= 7.55E-02
Tor= 1.40E-01

t=1800.0



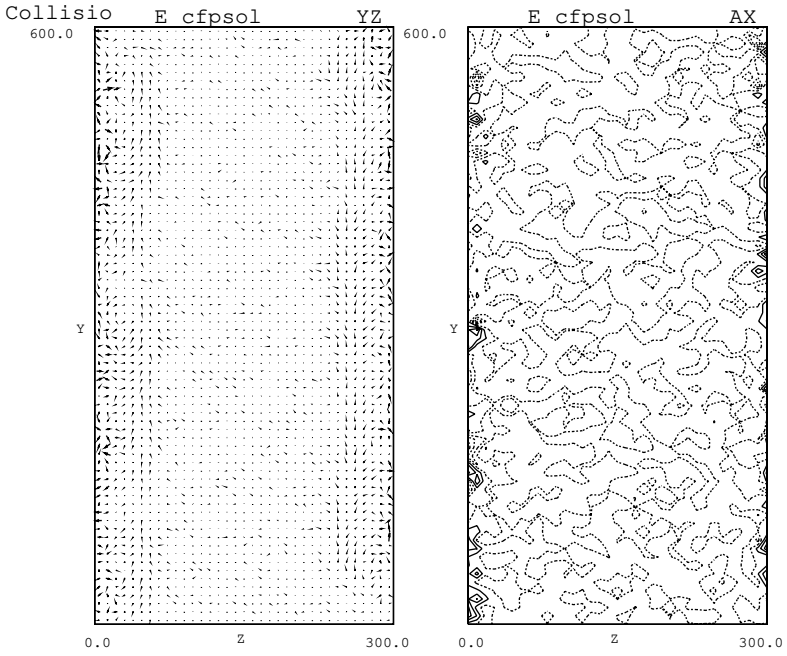
Pol= 1.71E-02
Tor= 1.15E-02

t=2100.0



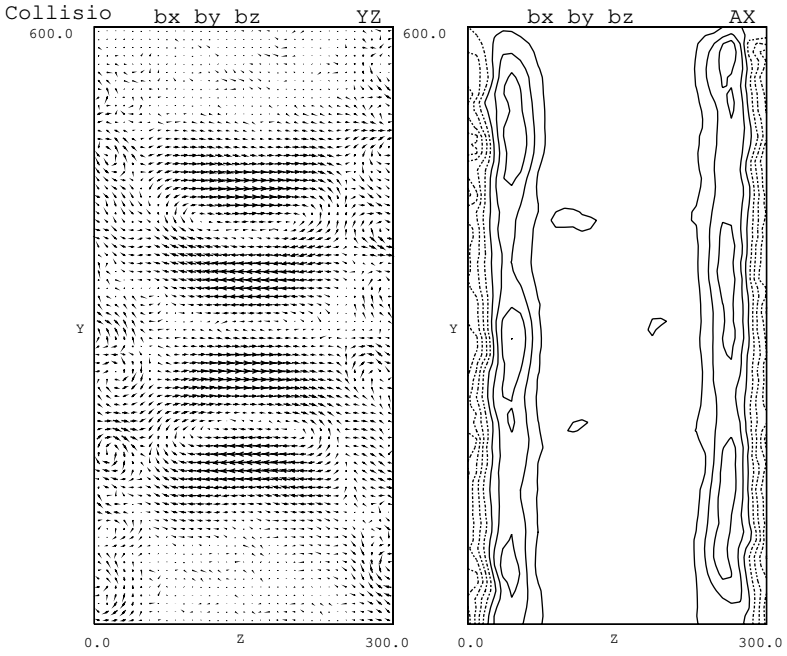
Pol= 7.51E-02
Tor= 1.34E-01

t=2100.0



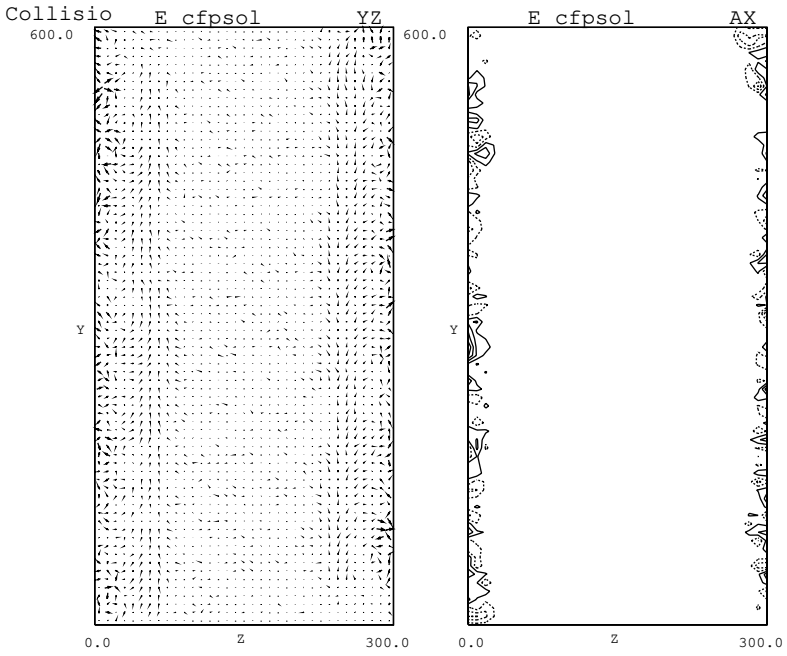
Pol= 1.79E-02
Tor= 8.99E-03

t=2400.0



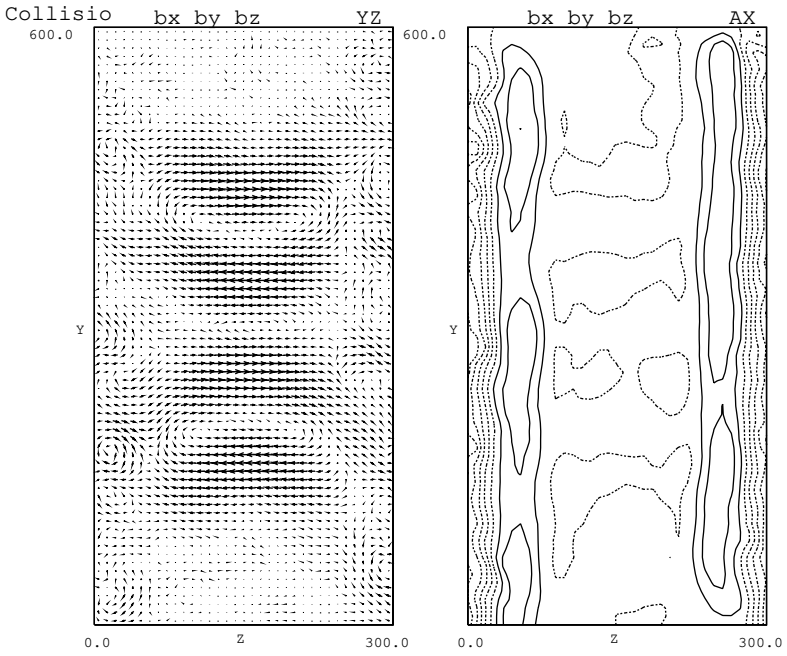
Pol= 7.49E-02
Tor= 1.29E-01

t=2400.0



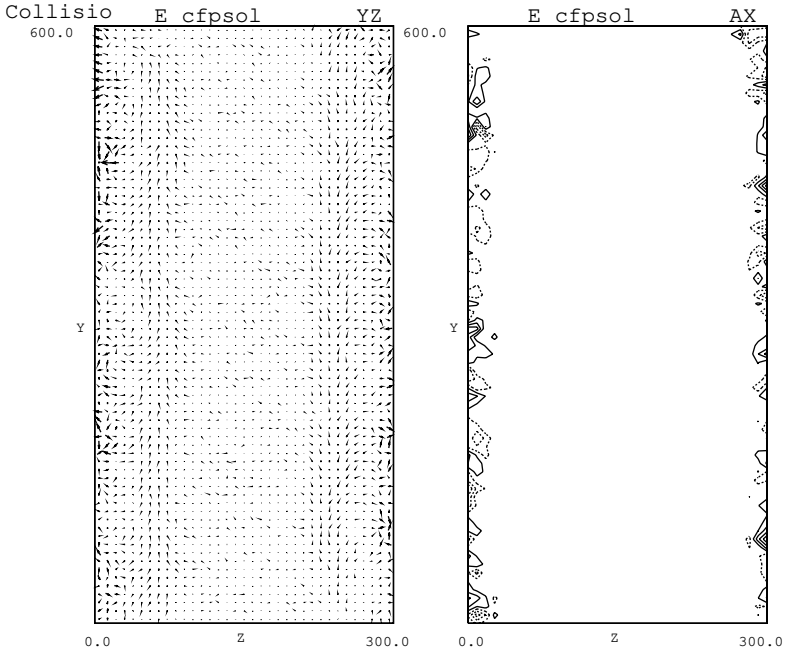
Pol= 1.56E-02
Tor= 1.06E-02

t=2700.0



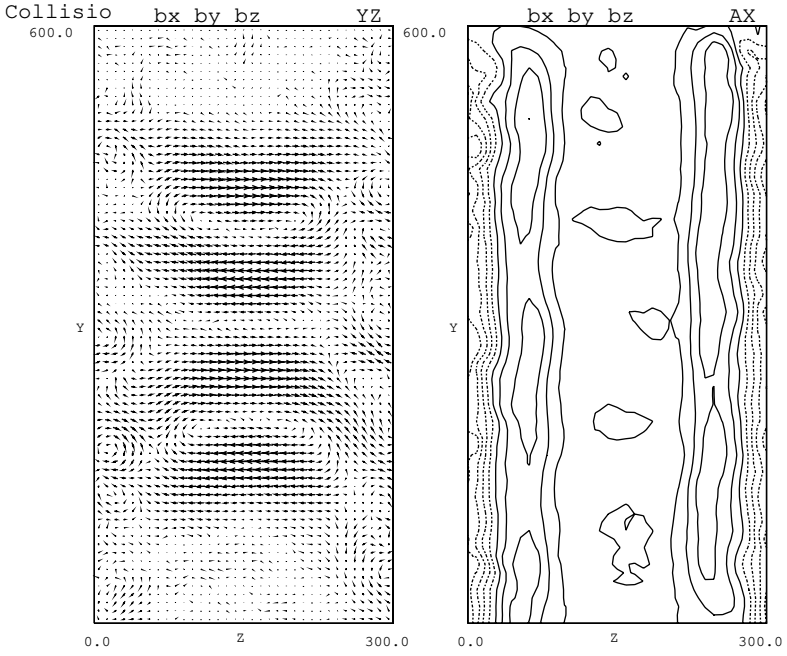
Pol= 7.45E-02
Tor= 1.27E-01

t=2700.0



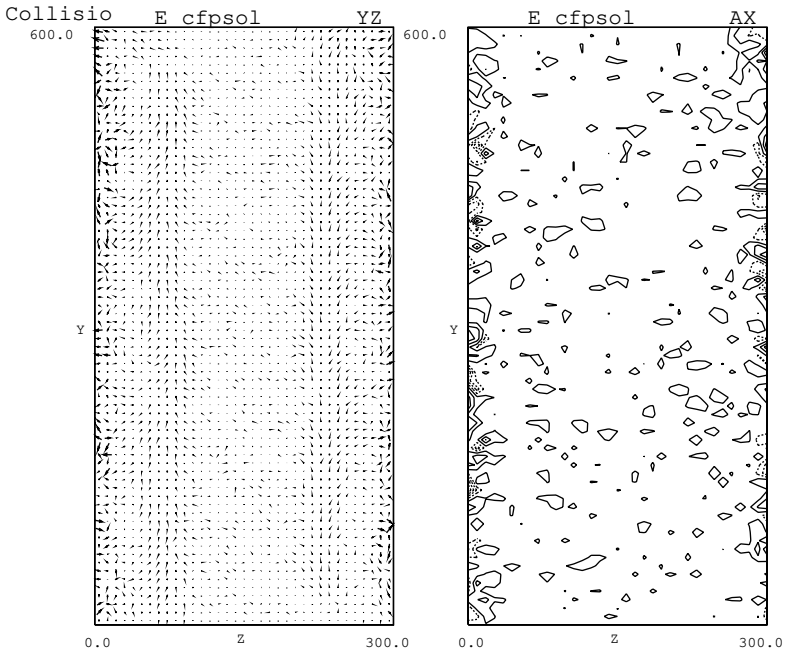
Pol= 1.30E-02
Tor= 9.04E-03

t=3000.0



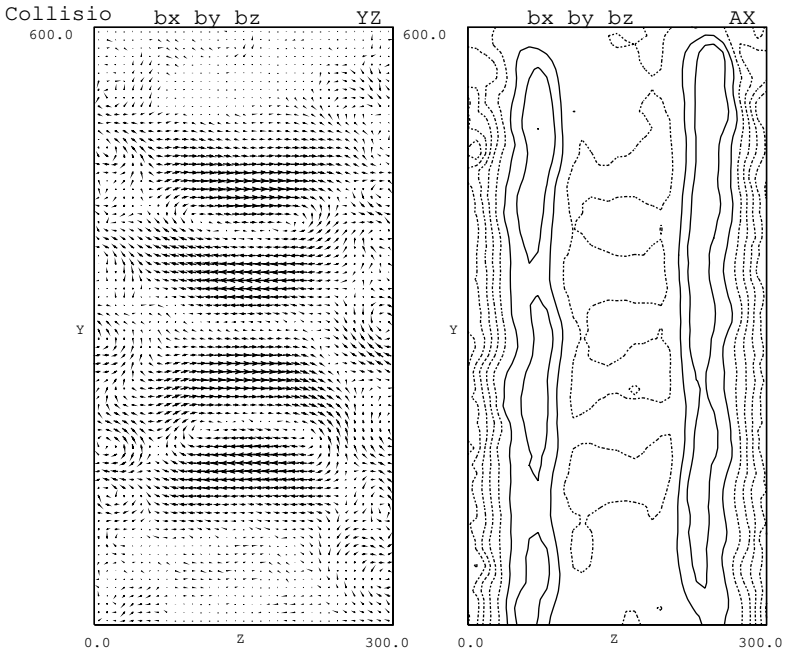
Pol= 7.42E-02
Tor= 1.16E-01

t=3000.0



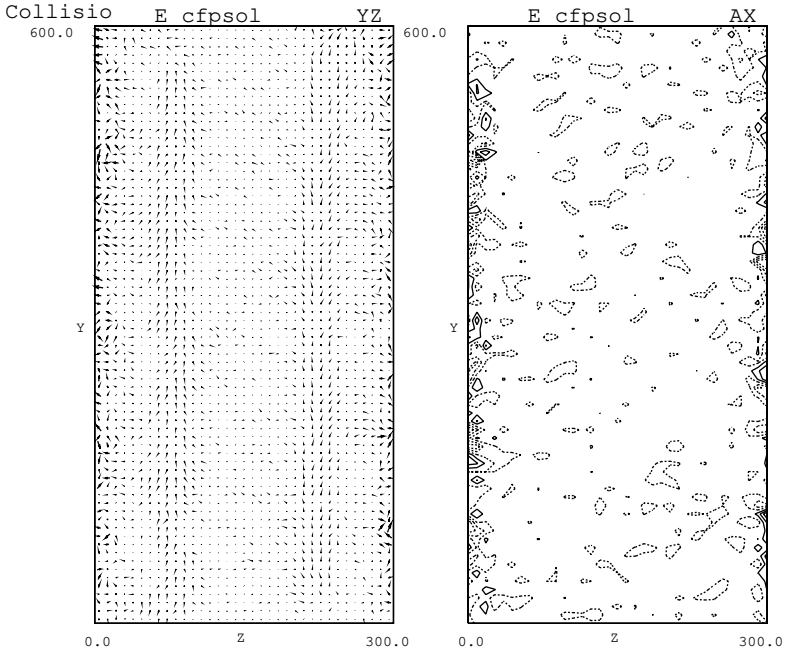
Pol= 1.12E-02
Tor= 8.22E-03

t=3300.0



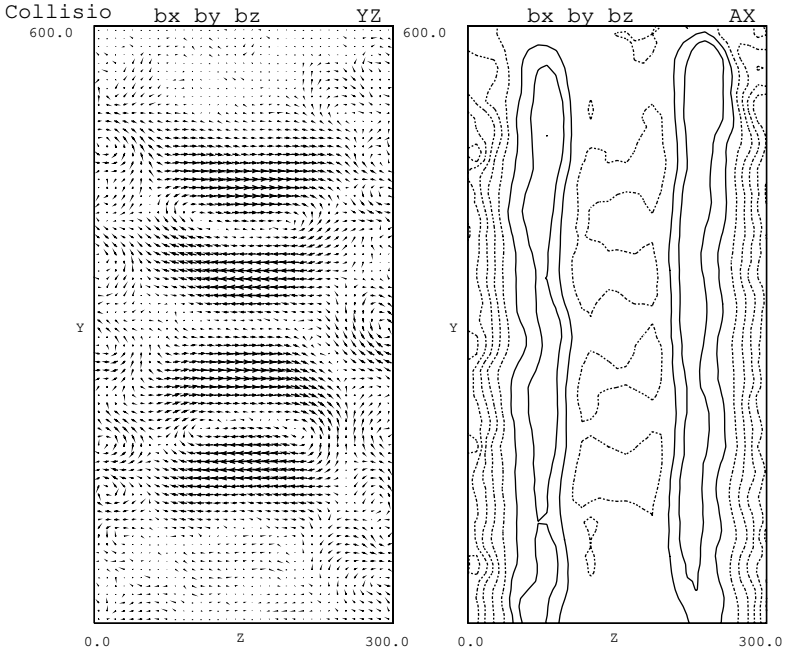
Pol= 7.40E-02
Tor= 1.23E-01

t=3300.0



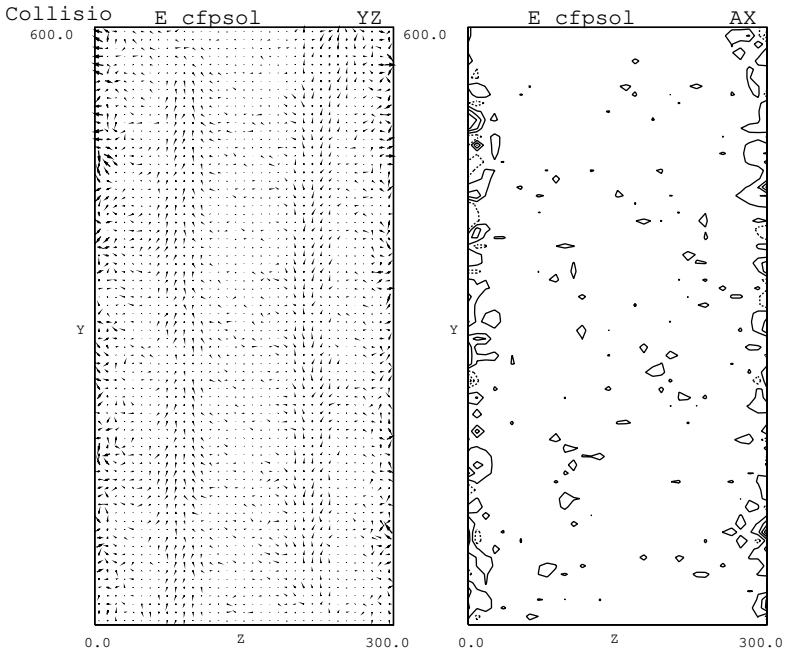
Pol= 1.37E-02
Tor= 5.56E-03

t=3600.0



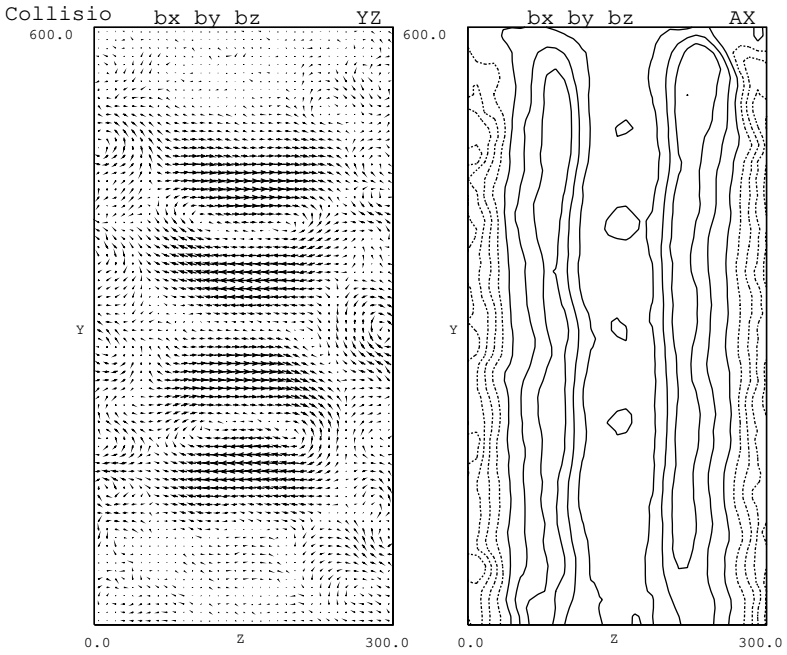
Pol= 7.25E-02
Tor= 1.17E-01

t=3600.0



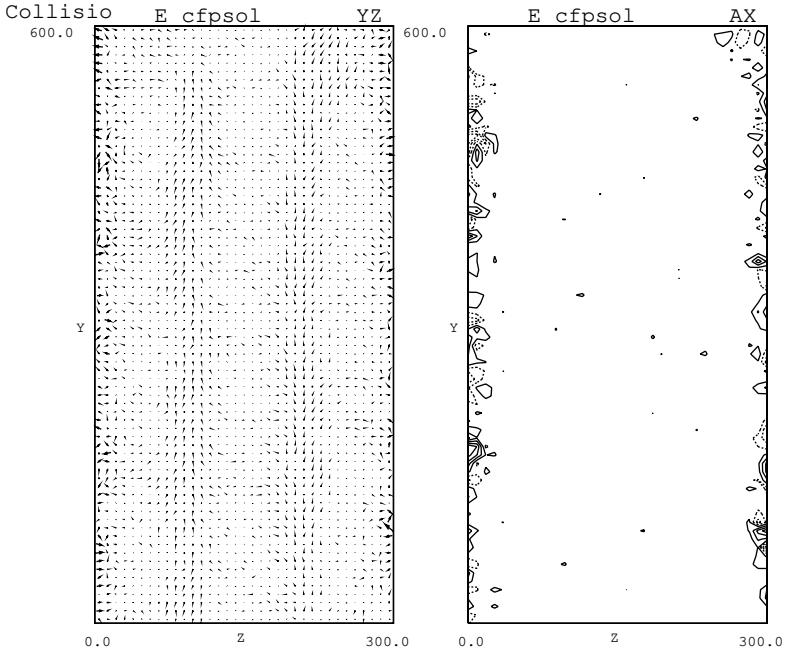
Pol= 1.29E-02
Tor= 7.34E-03

t=3900.0



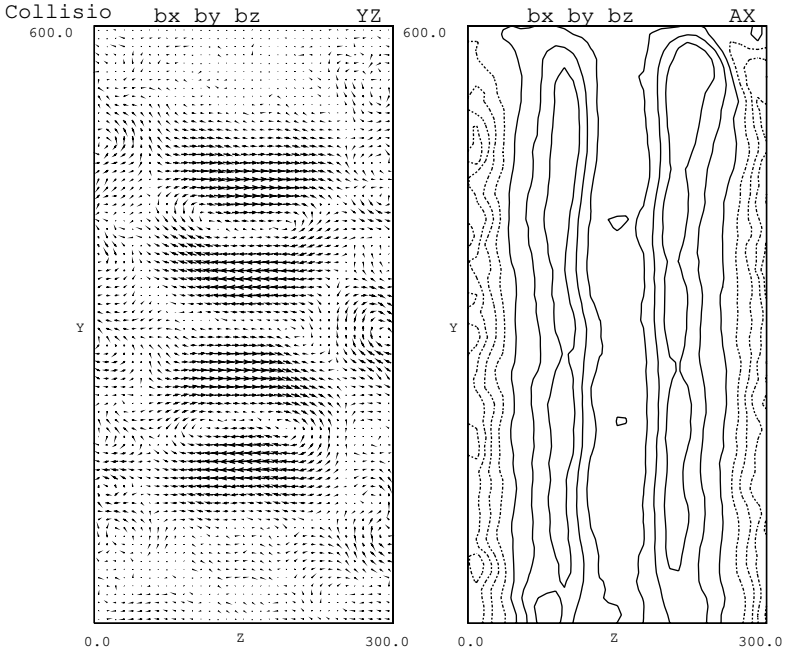
Pol= 7.04E-02
Tor= 1.04E-01

t=3900.0



Pol= 1.37E-02
Tor= 6.42E-03

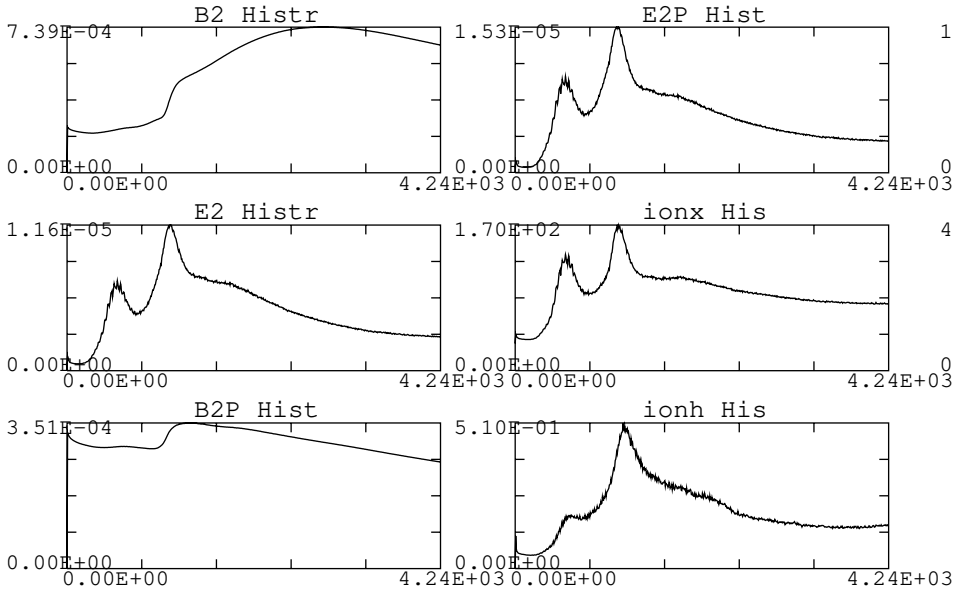
t=4200.0



Pol= 7.00E-02
Tor= 1.04E-01

t=4200.0

Collisi2024/11/14



Collisi2024/11/14