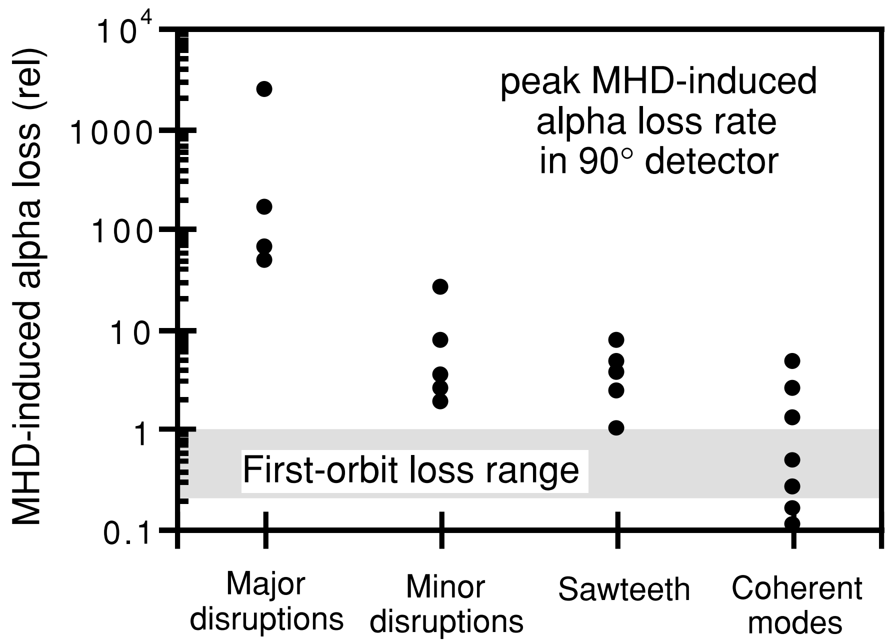


MHD-induced alpha loss (rel)
10^4
1000
100
10
1
0.1
peak MHD-induced
alpha loss rate
in 90° detector
First-orbit loss range
Major
disruptions
Minor
disruptions
Sawteeth
Coherent
modes

Fig. 14

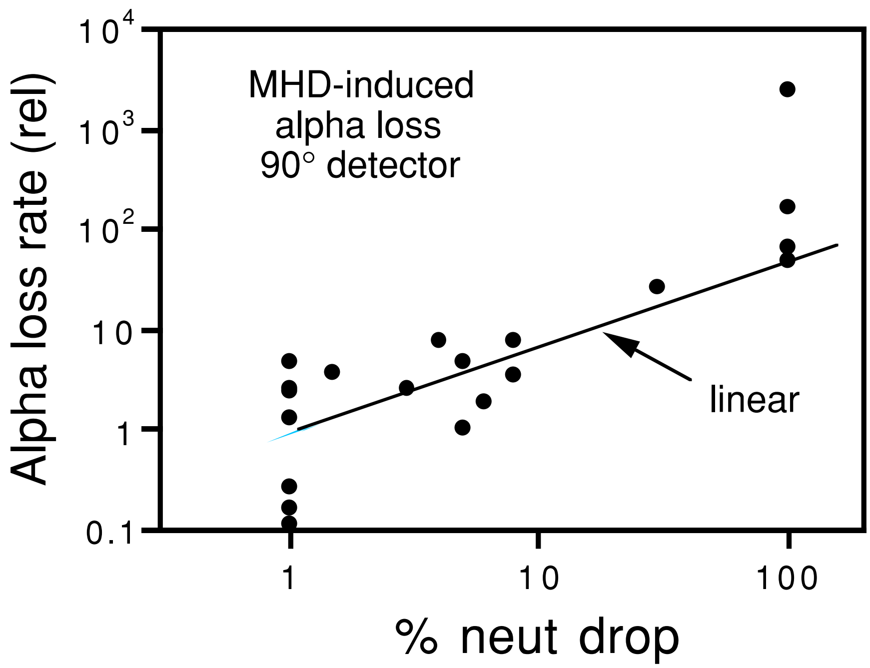
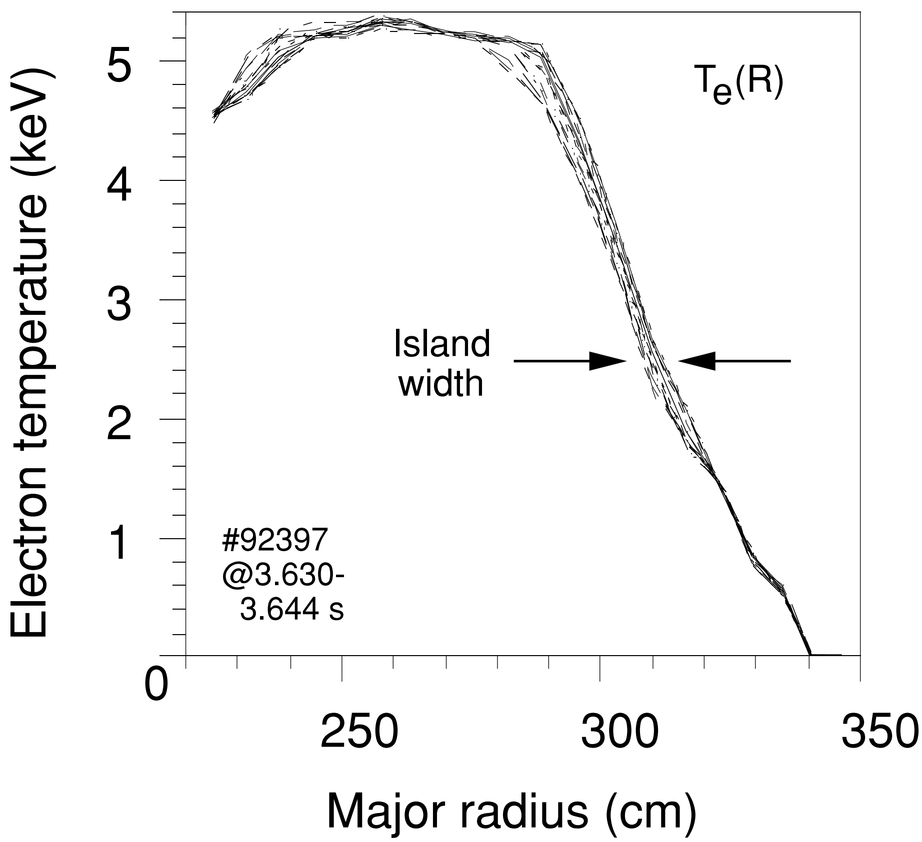
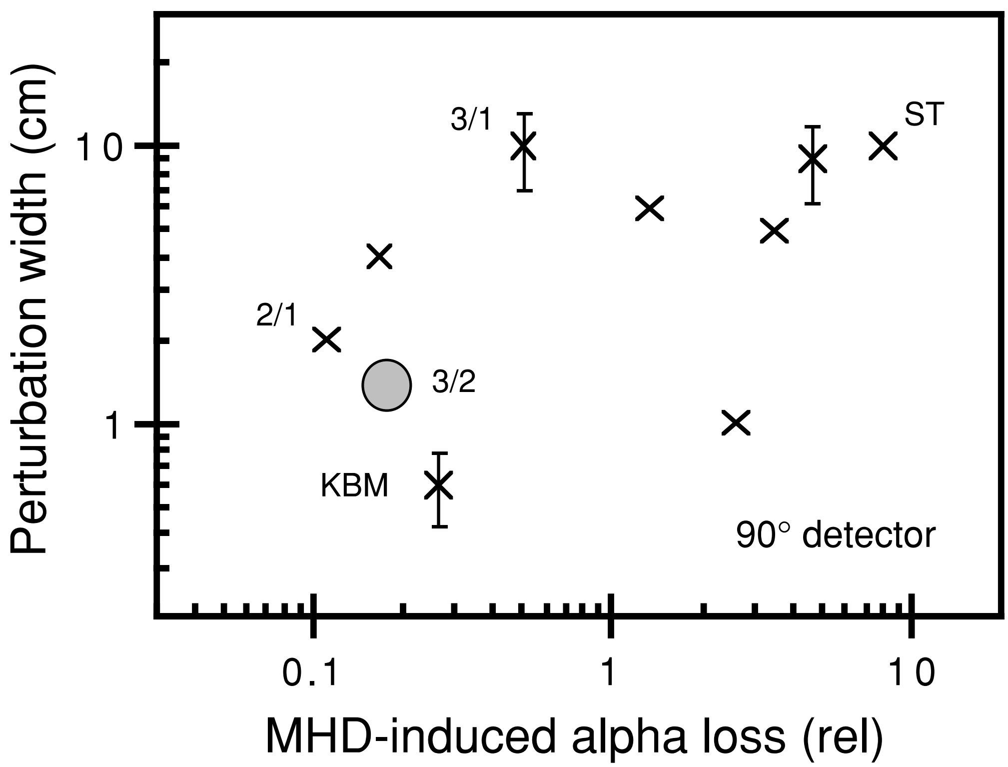

MHD-induced
alpha loss
90° detector
linear
Alpha loss rate (rel)
% neut drop
0.1
1
10
10^2
10^3
10^4
1
10
100

Fig. 15



Electron temperature (keV)
Major radius (cm)
$T_e(R)$
Island
width
#92397
@3.630-
3.644 s
0
1
2
3
4
5
250
300
350

Fig. 16



Perturbation width (cm)
10
1
3/1
ST
2/1
3/2
KBM
90° detector
0.1
1
10
MHD-induced alpha loss (rel)

Fig. 17

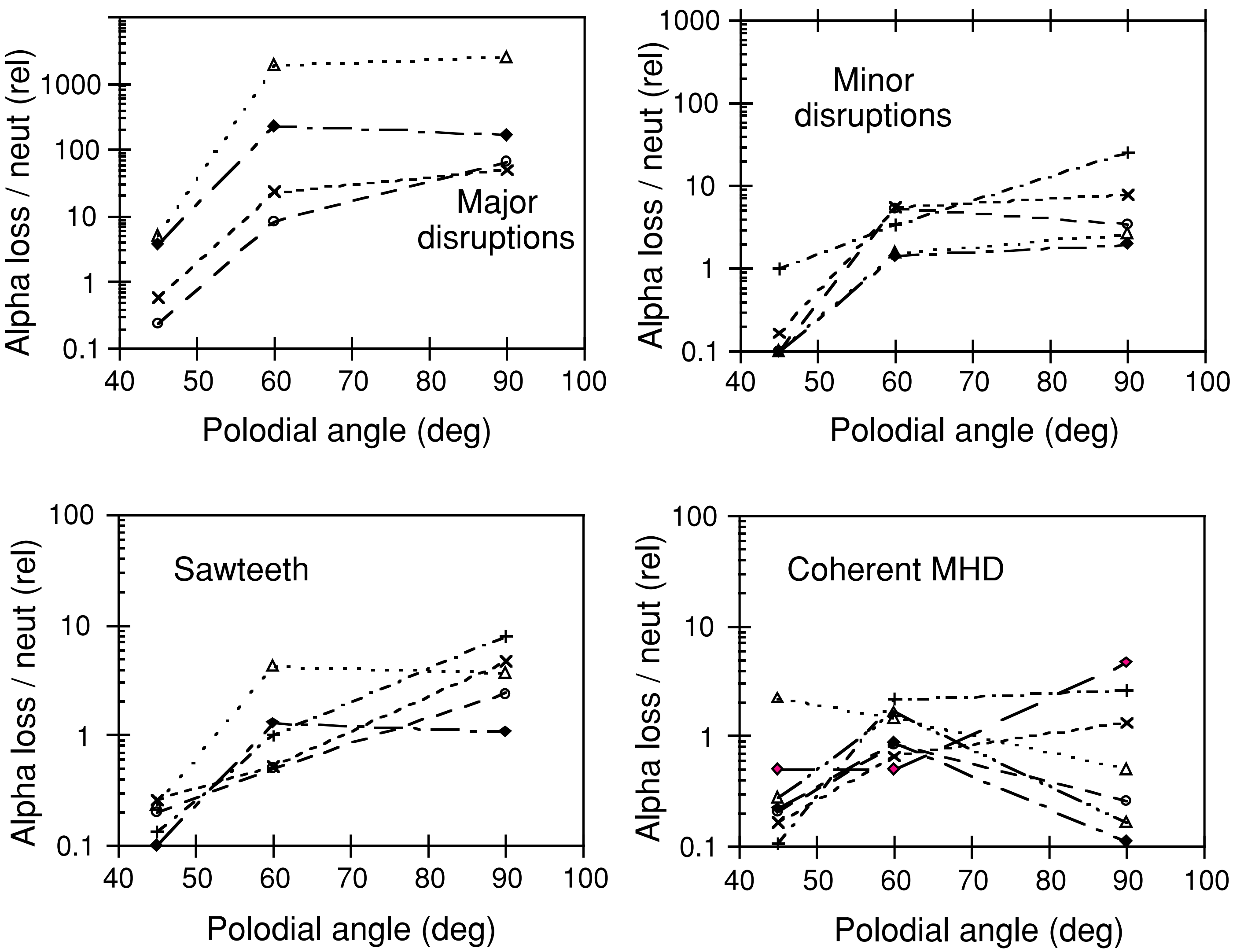
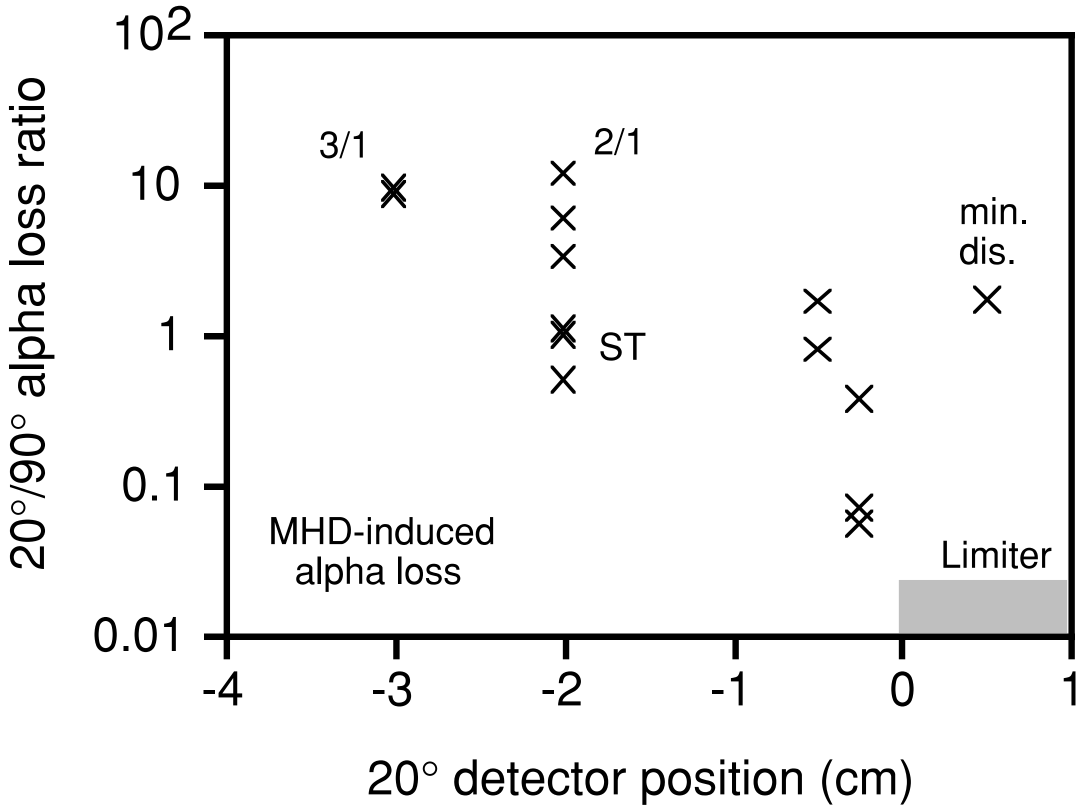
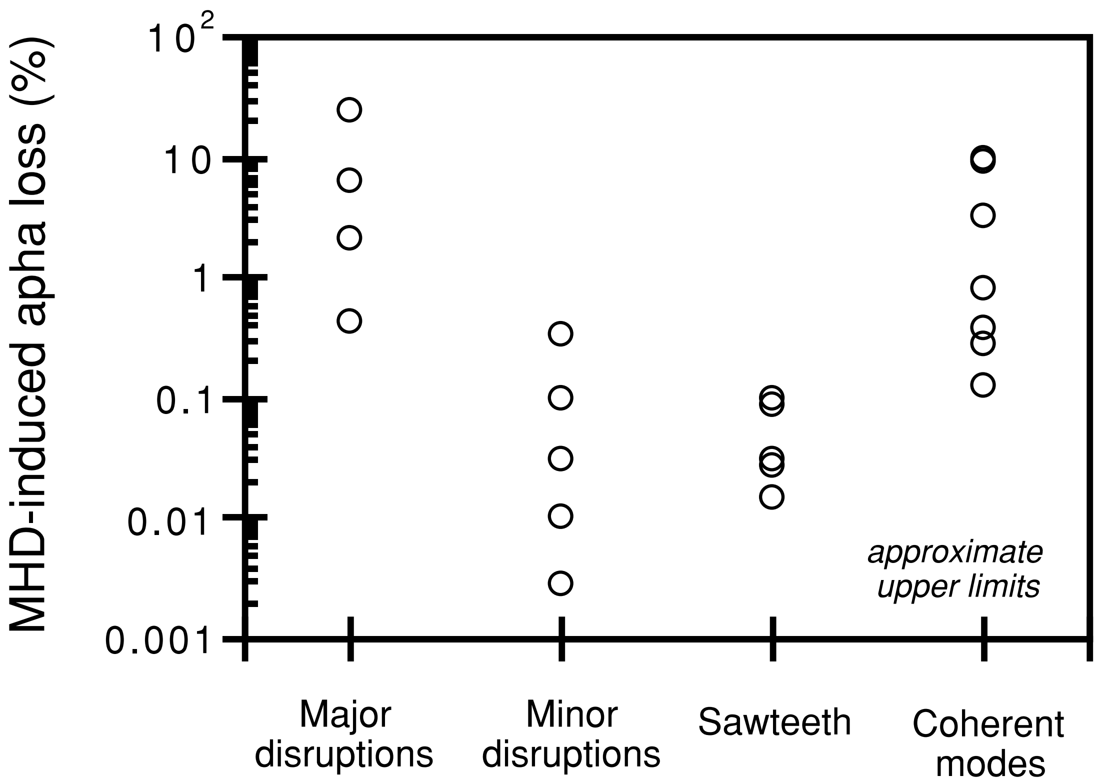

Major disruptions
Minor disruptions
Sawteeth
Coherent MHD
Alpha loss / neut (rel)
Polodial angle (deg)

Fig. 18



10^2
10
1
0.1
0.01
3/1
2/1
ST
min.
dis.
MHD-induced
alpha loss
Limiter
-4
-3
-2
-1
0
1
20° detector position (cm)
20°/90° alpha loss ratio

Fig. 19



MHD-induced apha loss (%)
10^2
10
1
0.1
0.01
0.001
approximate
upper limits
Major
disruptions
Minor
disruptions
Sawteeth
Coherent
modes

Fig. 20