

IDL Commands:

Figure 2:

```
coldtheta, .4, 1, 1, 1, [10, 30, 60, 80], kmax=2, nw=2000, wmax=.8
```

Figure 3:

```
coldvph, .4, 1, 1, 1, [1, 10, 100, 1000], /ion, /kev
```

Figure 4:

```
coldvph, .4, 1, 1, 1, [1, 10, 100, 1000], /ion, /kev, /poynt, wmax=.4
```

Figure 5:

```
kinalfcon1, 10, 1, .4, /fcont, pltlab='(a)'
```

```
kinalfcon1, 1000, 1, .4, /fcont, pltlab='(b)'
```

Figure 6:

```
kinalfconbeam, 1000, 1, .4, .01, 1, 100, /gamw, /fcont, nkx0=200, nkz0=240, wmax=1.2, kzmax=12.0
```

Supplementary Material:

Figure S1:

```
coldvph, .4, 1, 1, 1, [1, 10, 100, 1000], /ion, /kev, /angle, wmax=.4
```

Figure S2:

```
ebperpvph, .4, 1, 1, 1, 1, 1000, 100, .1, /kev, /perp, /elog
```

Figure S3:

```
coldvph, .4, 1, 1, 1, [1, 10, 100, 1000], /kev, /ion, /polez, wmax=.4
```

Figure S4:

```
kinalf1, 10, 1, .4, [2, 4, 6, 8], pltlab='(a)'
```

```
kinalf1, 100, 1, .4, [2, 4, 6, 8], pltlab='(b)'
```

```
kinalf1, 300, 1, .4, [2, 4, 6, 8], pltlab='(c)'
```

```
kinalf1, 1000, 1, .4, [2, 4, 6, 8], pltlab='(d)'
```

Figure S5:

```
kinalfcon1, 1000, 1, .4, /damp, /fcont, pltlab='(a)'
```

```
kinalfcon1, 1000, 1, .4, /gamw, /fcont, pltlab='(b)', wmax=1.2, kzmax=12.0
```

Figure S6:

```
kinalfconbeam, 100, 1, .4, .01, 1, 10, /damp, /fcont, pltlab='(a)'
```

```
kinalfconbeam, 100, 1, .4, .01, 1, 10, /gamw, /fcont, pltlab='(b)', nkz0=400, kzmax=20, wmax=1.05
```