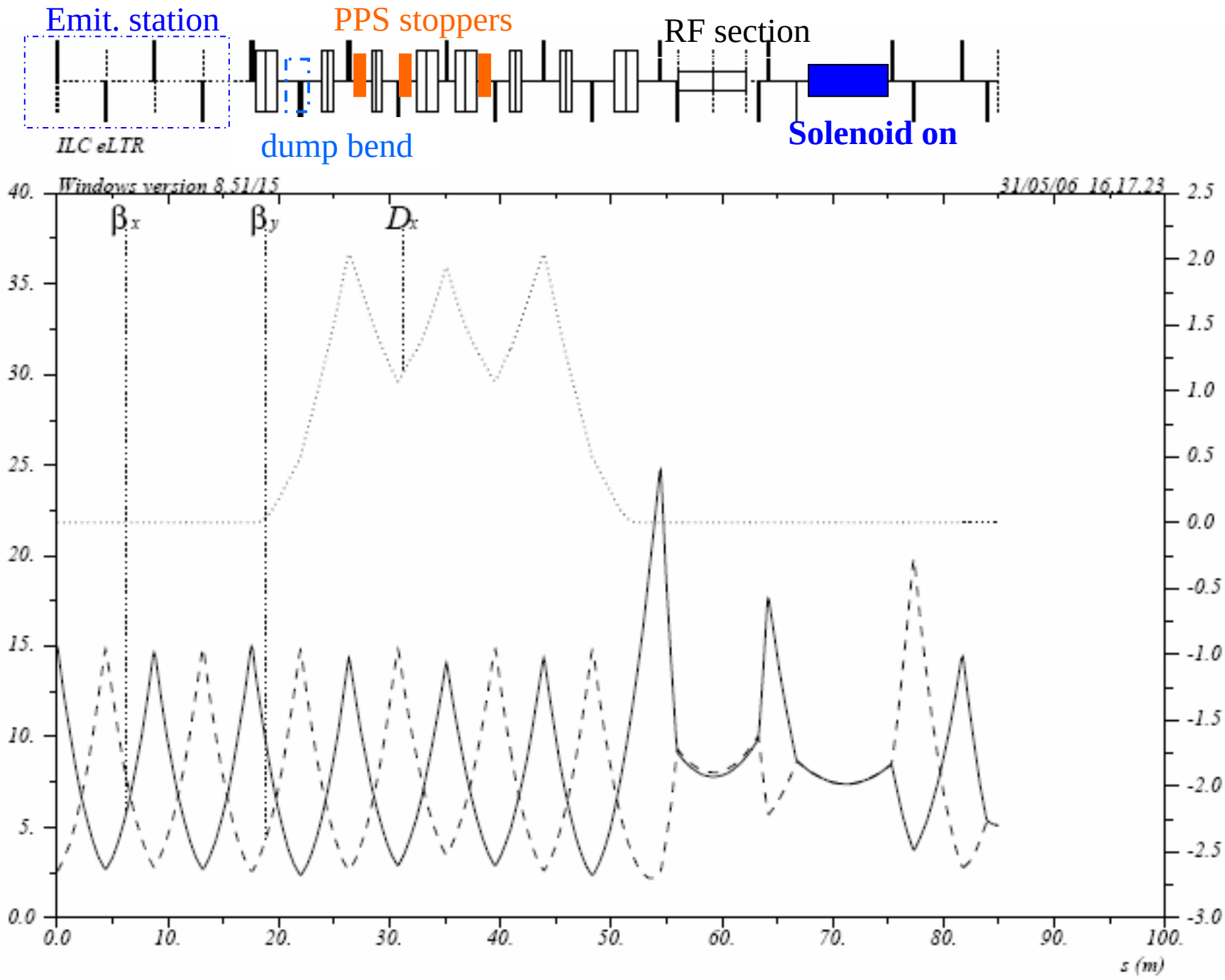
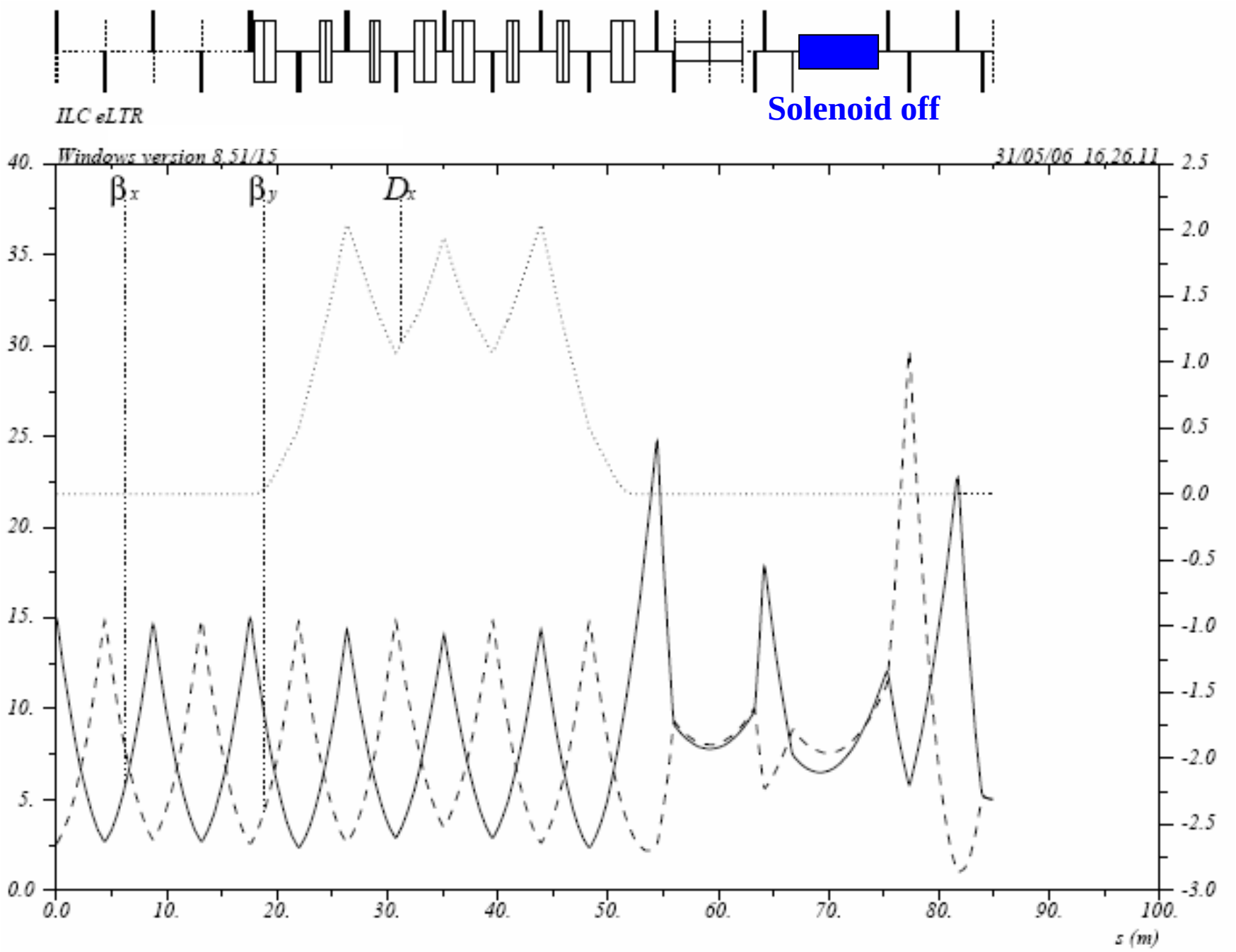

Emit. station
PPS stoppers
RF section
ILC eLTR
dump bend
Solenoid on
Windows version 8.51/15
31/05/06 16.17.23
βx
βy
Dx
40.
35.
30.
25.
20.
15.
10.
5.
0.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
0.0
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
s (m)

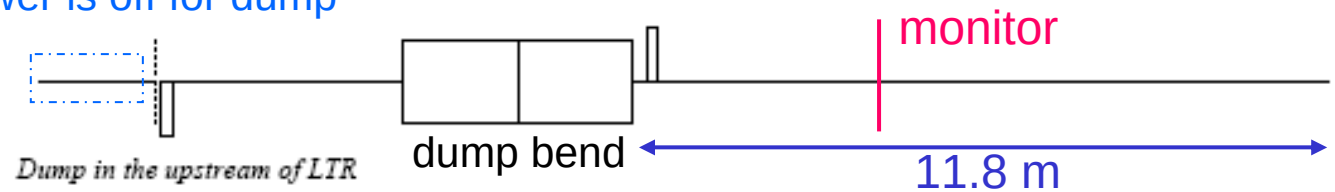

ILC eLTR
Solenoid off
Windows version 8.51/15
31/05/06 16.26.11
βx
βy
Dx
40.
35.
30.
25.
20.
15.
10.
5.
0.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
0.0
10.
20.
30.
40.
50.
60.
70.
80.
90.
100.
s (m)

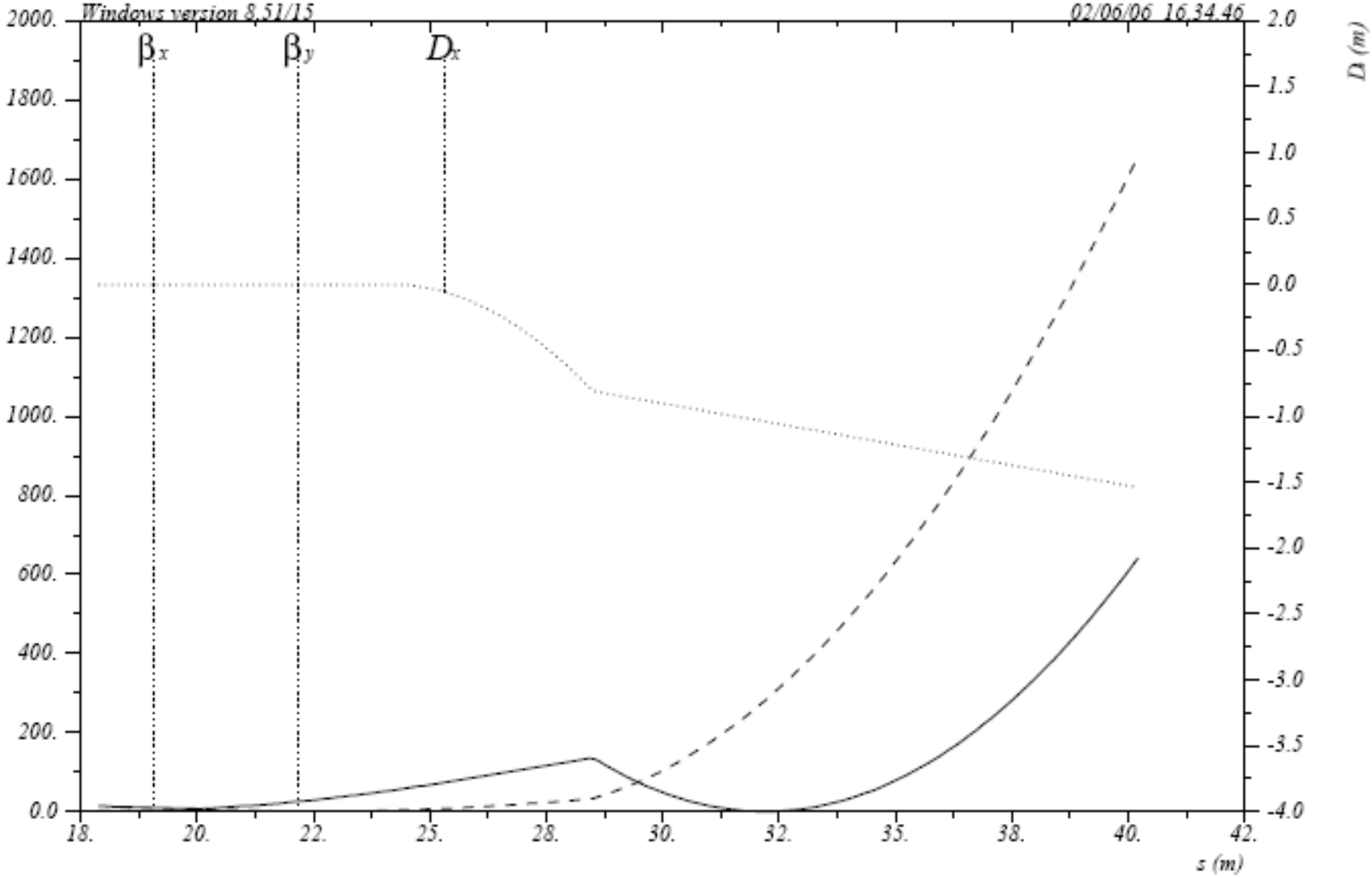
Detail of elements

- One matching section (not shown in the plot) connected eBooster to the entrance of emittance station.
- Emittance measurements: 2 FODOs;
- ARC section: 7×7.931° (7×π/2 spin precession); R56 is 96 cm, which is adjusted flexibly:
  - 69-126 cm only matching arc quads
  - 36-66 cm when bending angle is 5×7.931°

  (note twiss parameter at the arc exit is always kept constant when changing R56)
- RF section is ~6 m
- Solenoid section is 4.16 m×2 ×3.16 T = 26.2 T.m
- 3 stoppers for PPS: each stopper occupies ~1 m space in the arc.

1st LTR bend,
power is off for dump





Details of dump

- At the monitor position, the dispersion dominates the beam size, the energy spectrometer resolution is 0.1%
- Beam size at the dump window

Energy spread	0.0%	10%
σx/σy (e-)	1.1cm/1.7cm	15.4cm/1.7cm
σx/σy (e+)	6.3cm/10cm	16.6cm/10cm

(note σ is half width)

- Dump bend: 20deg of angle and 4m of length.
- Quad strength is similar to LTR
- The distance between the bend exit to dump window is 11.8 m