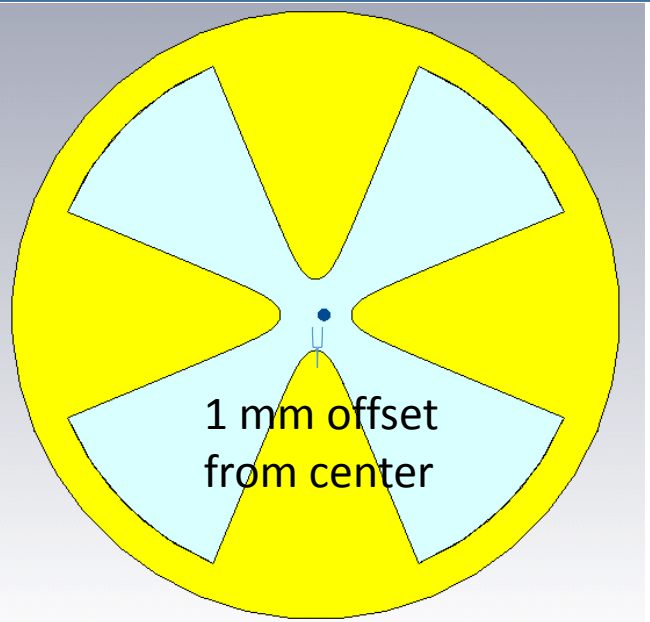
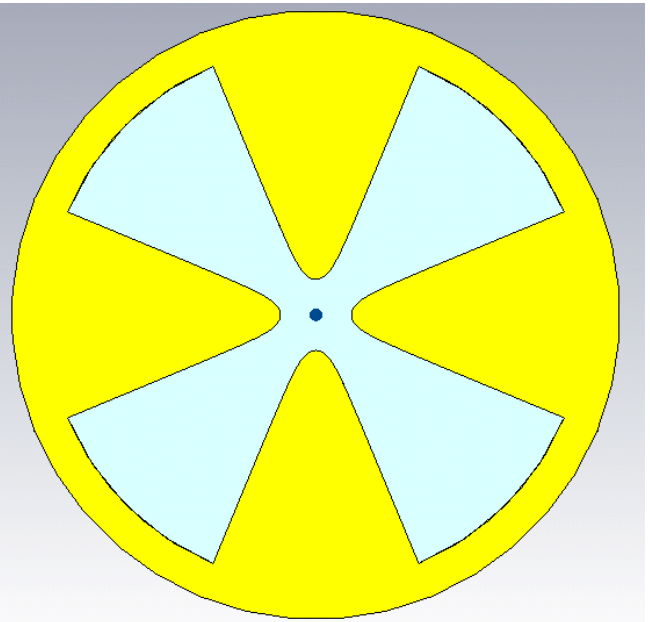
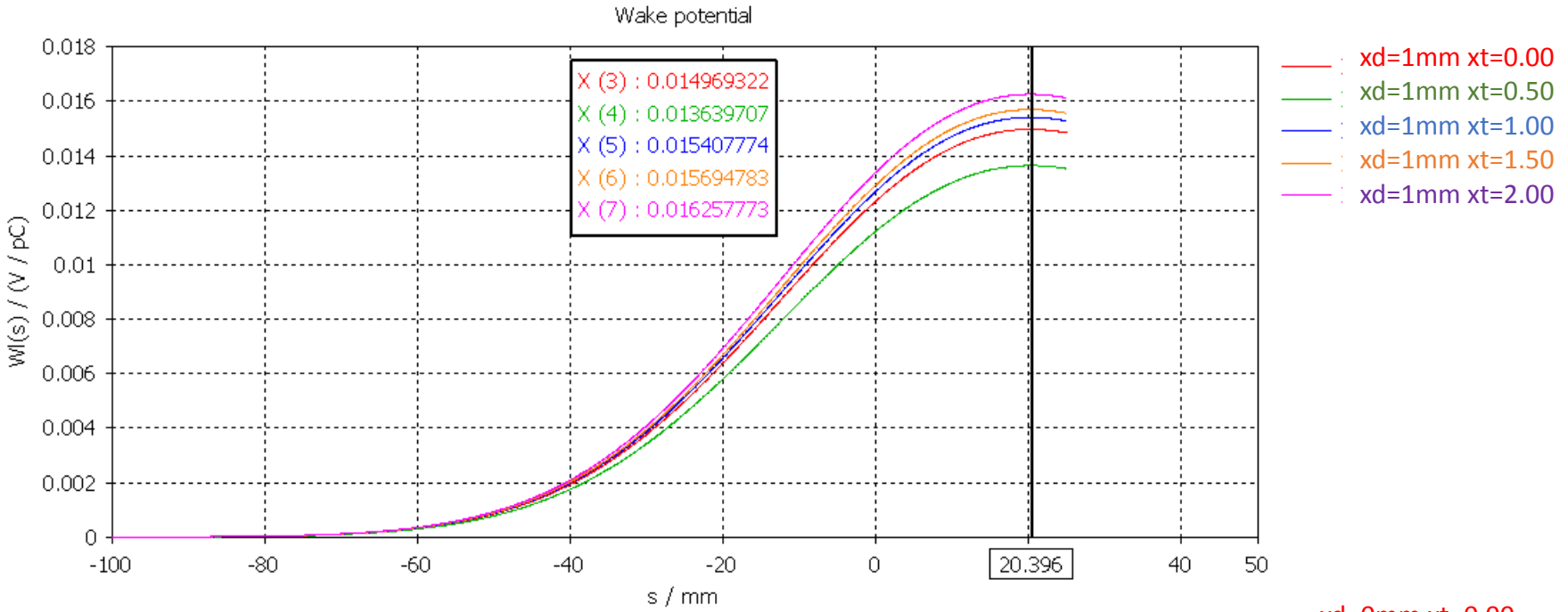
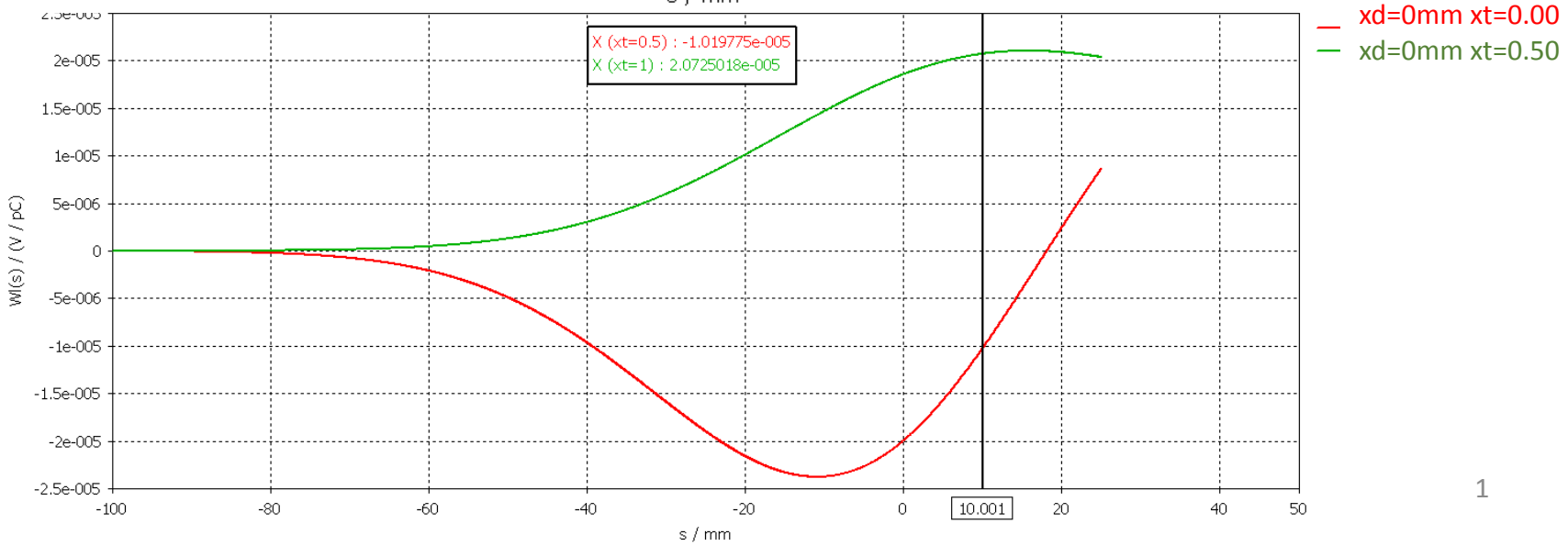
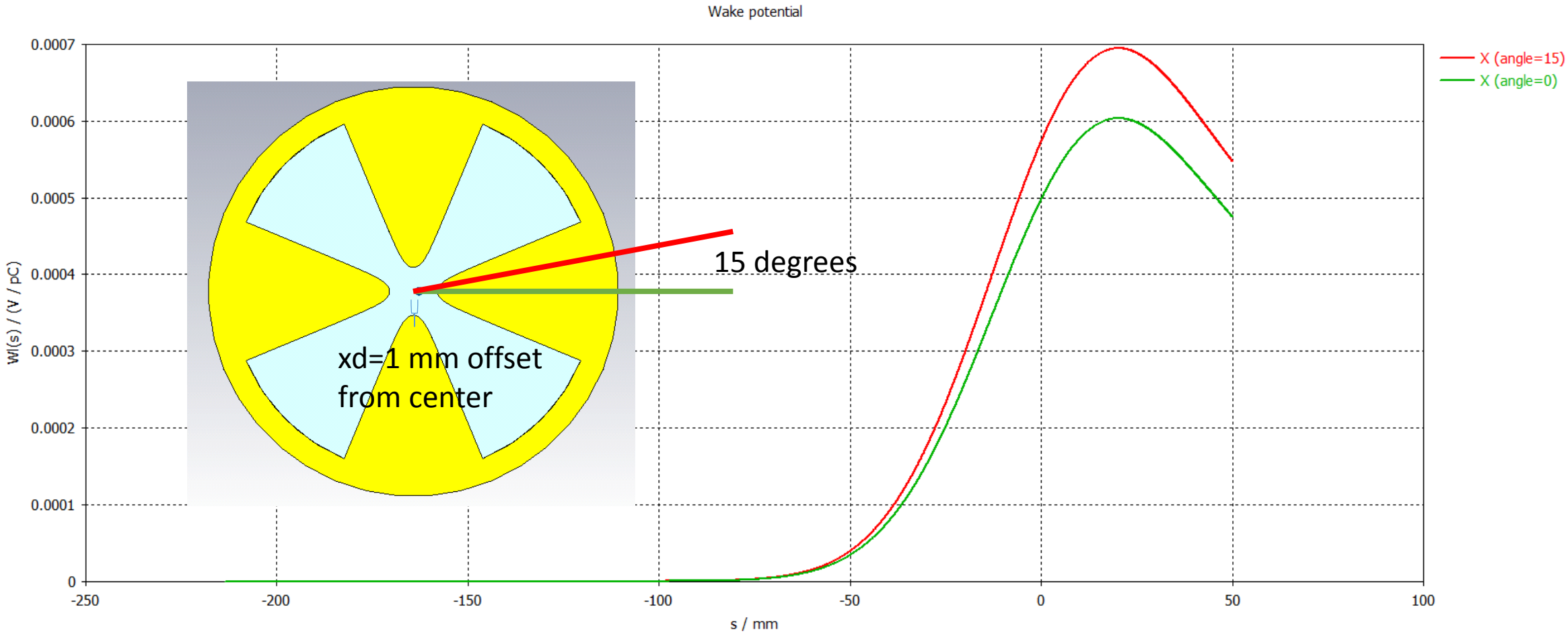
The quadrupolar impedance is zero for a 4-pole structure

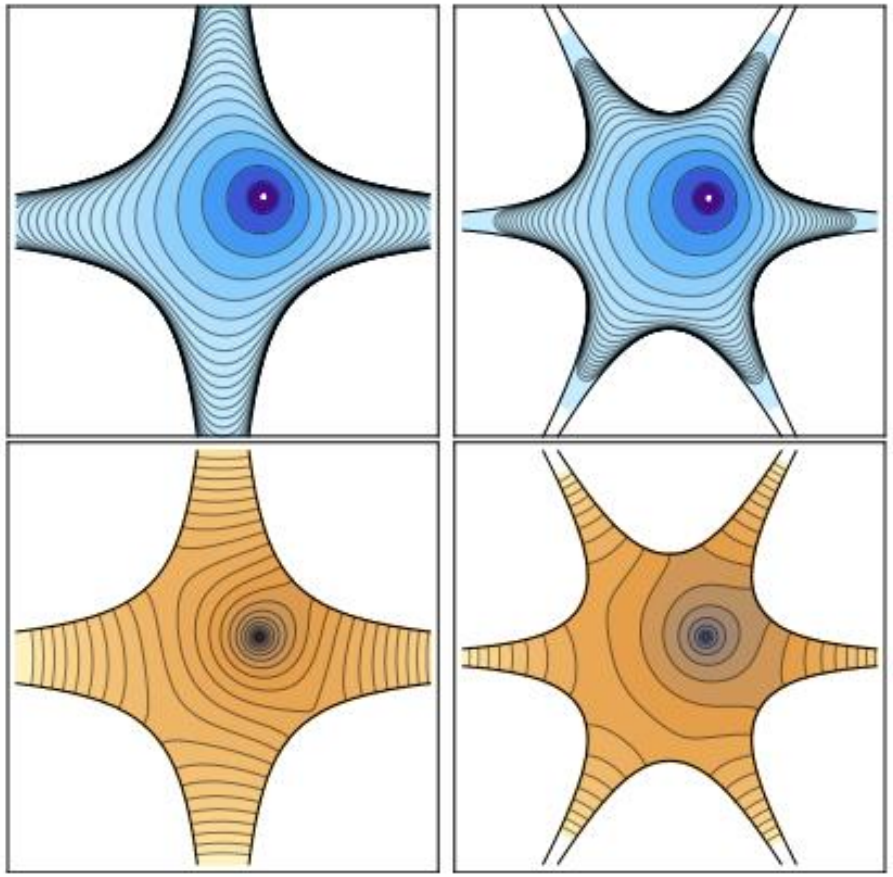




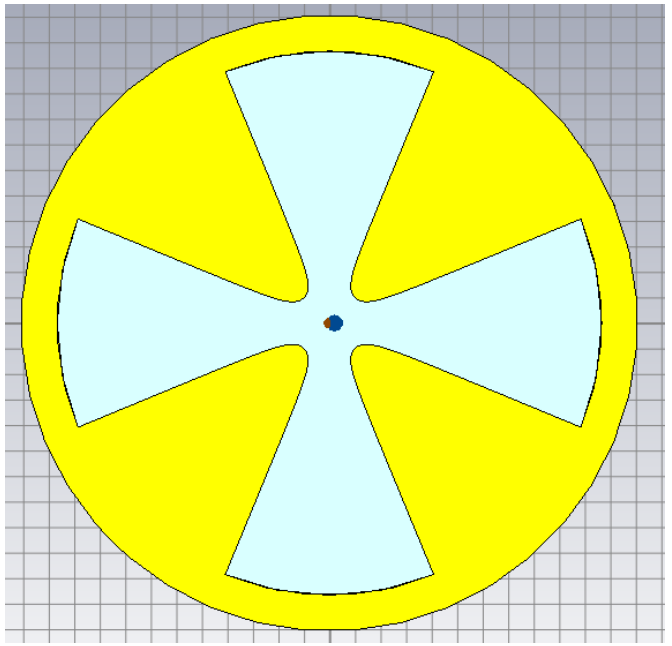





Wake potential
0.0007
0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
W(s) / (V / pC)
-250
-200
-150
-100
-50
0
50
100
s / mm
X (angle=15)
X (angle=0)
15 degrees
xd=1 mm offset
from center



We discussed with Simon Hirlander (BE-OP-SPS), after the last impedance meeting, because also he is working on a closed form to solve the EM problem, in a stricture really similar to ours.



https://indico.cern.ch/event/686784/contributions/2817561/attachments/1572272/2481071/Impedance_08122017.pdf