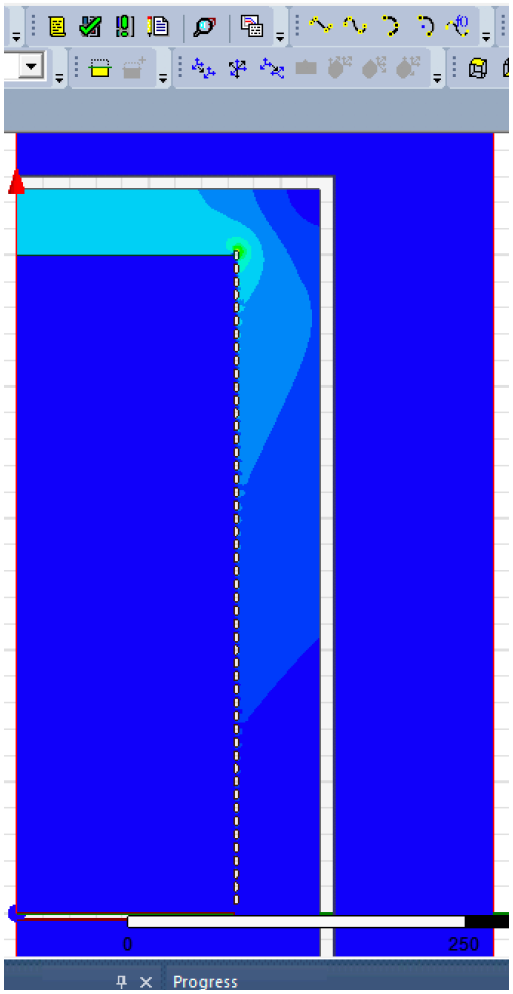
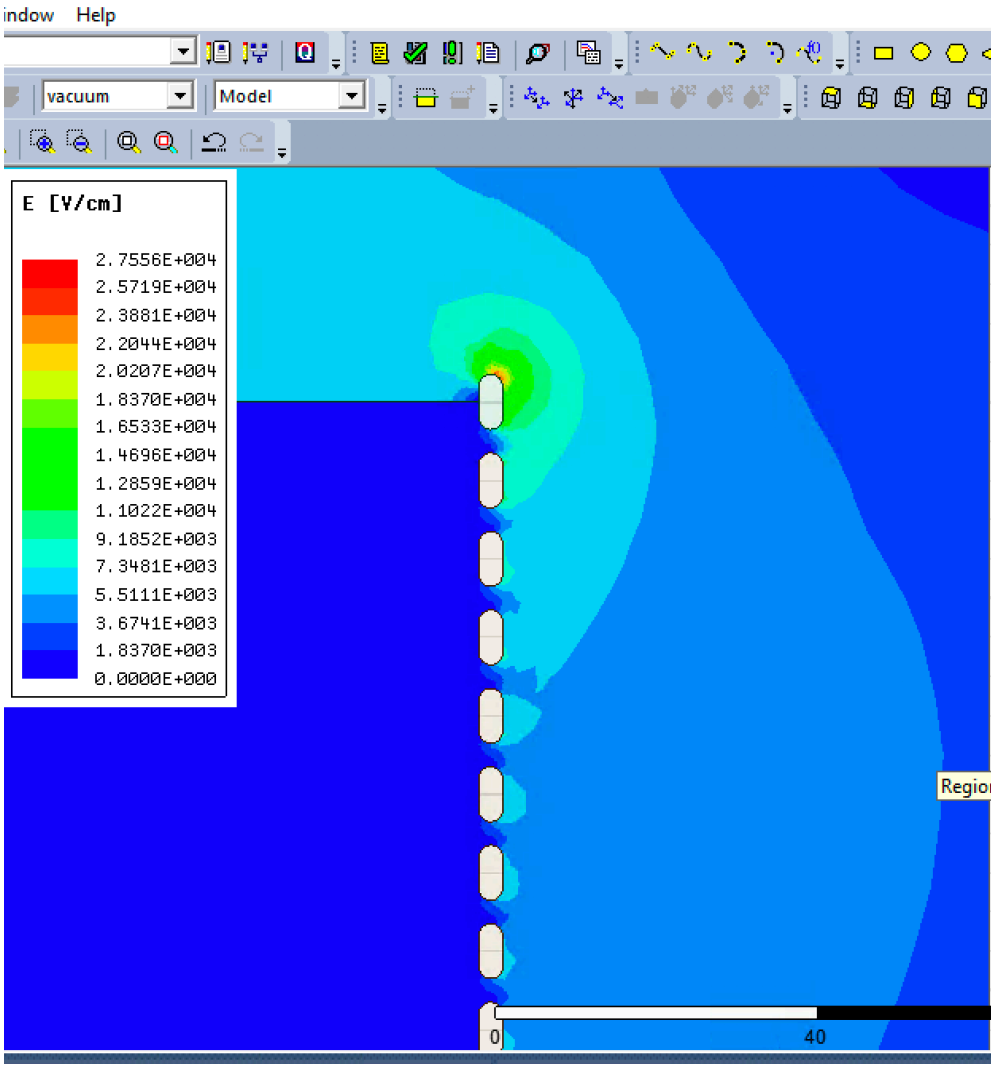
# CAVEAT:

this is not a discussion for LIME but for the 1 m3

i.e. I am not saying we should change LIME design

**New: 15 May**




**Maximum field with 7 mm full/3 mm empty:**

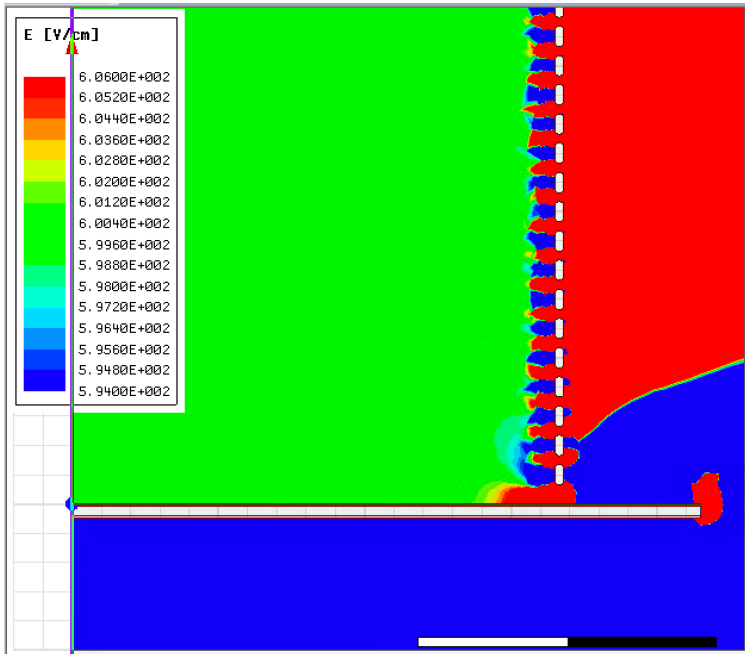
**28 kV/cm on cathode**

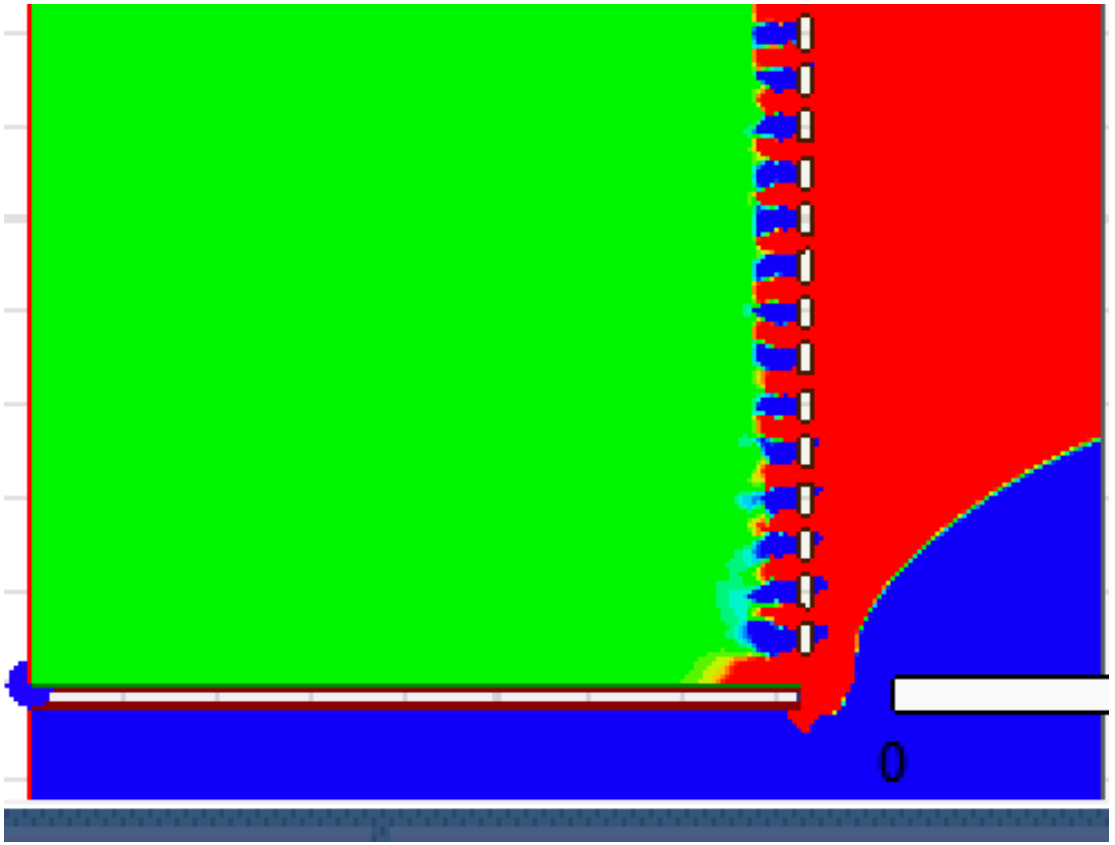
**5-10 kV/cm between bandelles —>**

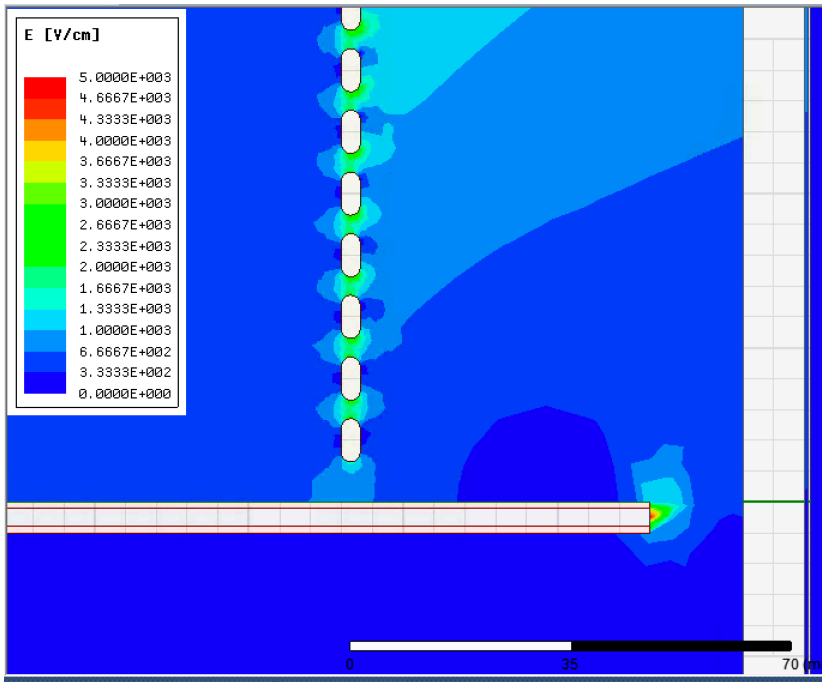
**rule of thumb from Francesco < 20 kV/cm**

**Bandellas 7 mm full / 3 mm empty does NOT discharge and is better than 6 mm full/ 4 mm empty**

# 7 mm full/3 mm empty with GEM 50 mm beyond FC: drift field still ok (showing 1%)

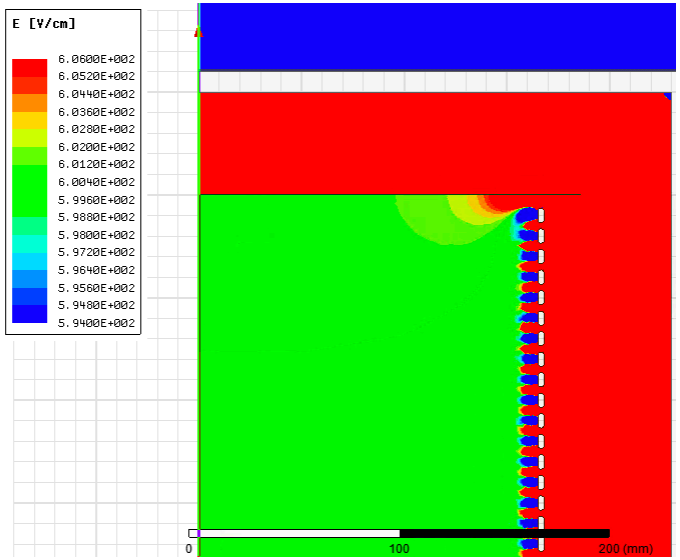


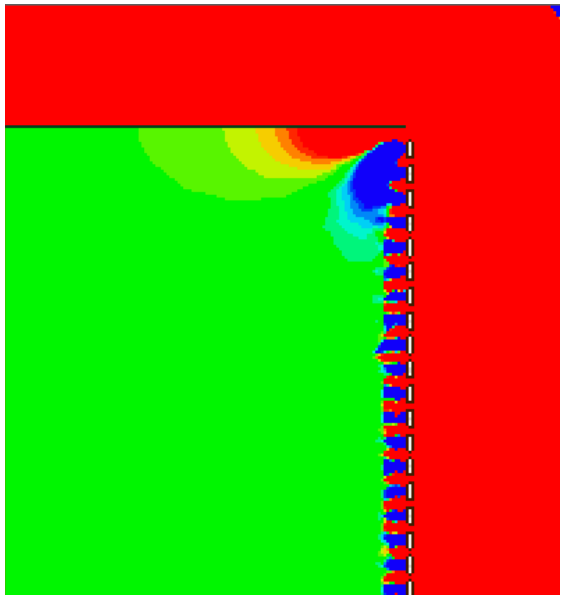



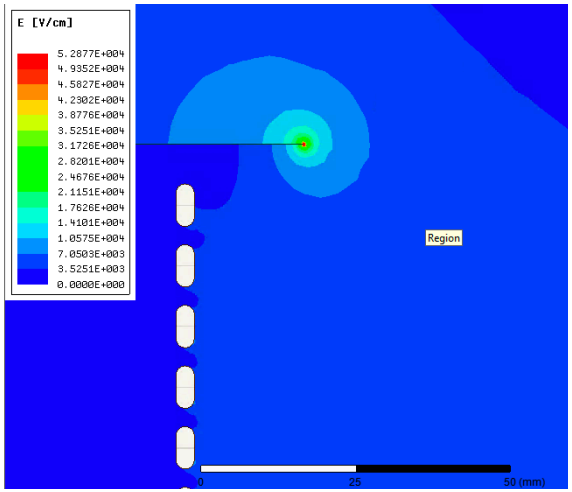


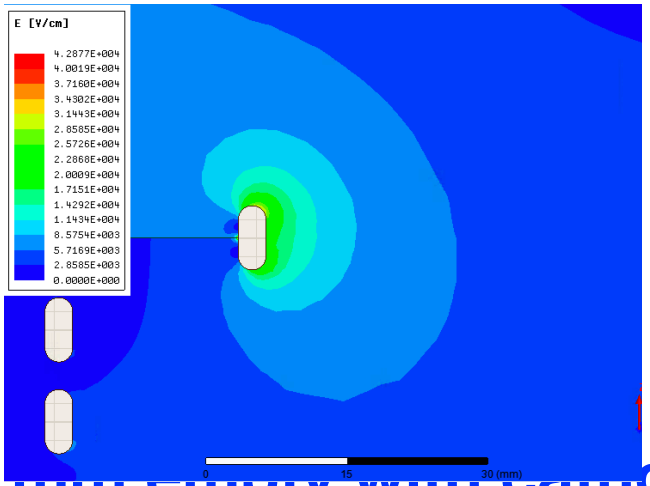

**About 5 kV/cm on GEM side, much closer to the vessel than before**

# 7 mm full/3 mm empty with cathode 20 mm beyond FC: drift field is even BETTER!! (showing 1%)





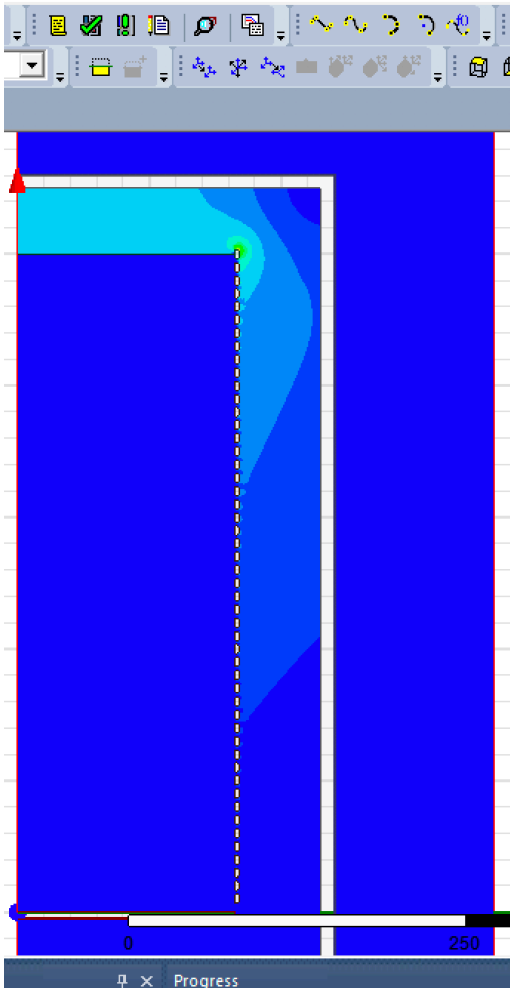



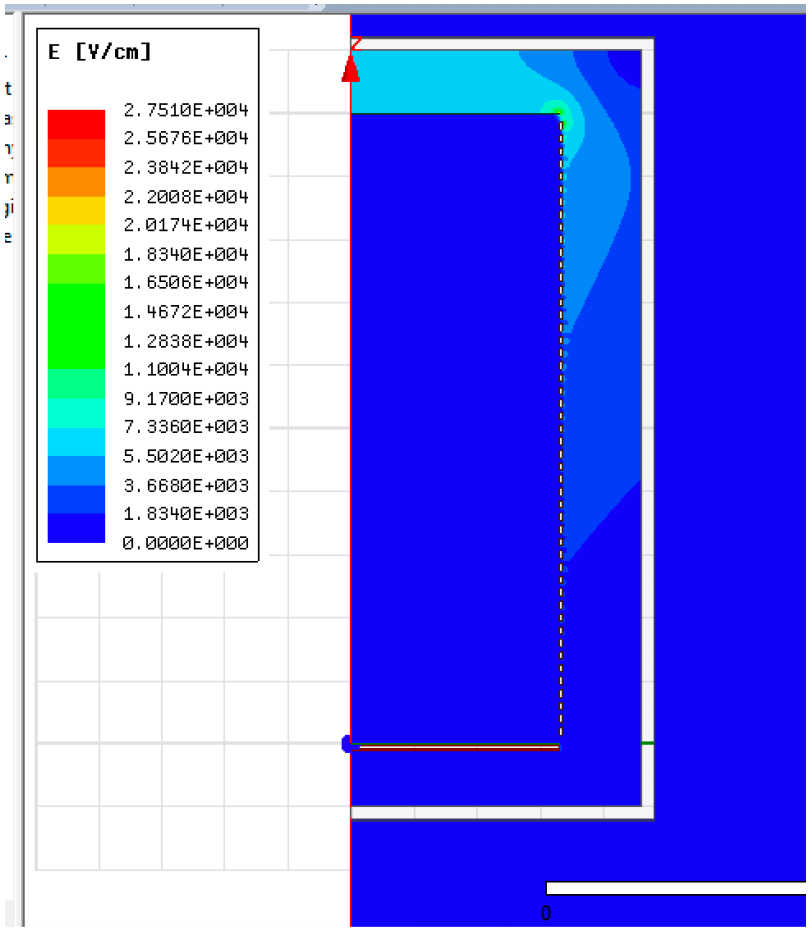

## Maximum field with 7 mm full/3 mm empty with cathode 20 mm beyond:

## 50 kV/cm on cathode —> 30 kV/cm with smooth surface

## 5-10 kV/cm between bandelles —> rule of thumb < 20 kV/cm

# Maximum field with 6 mm full/4 mm empty:
# 28 kV/cm on cathode
# 5-10 kV/cm between bandelles —>
# SAME AS 7 mm full / 3 mm empty

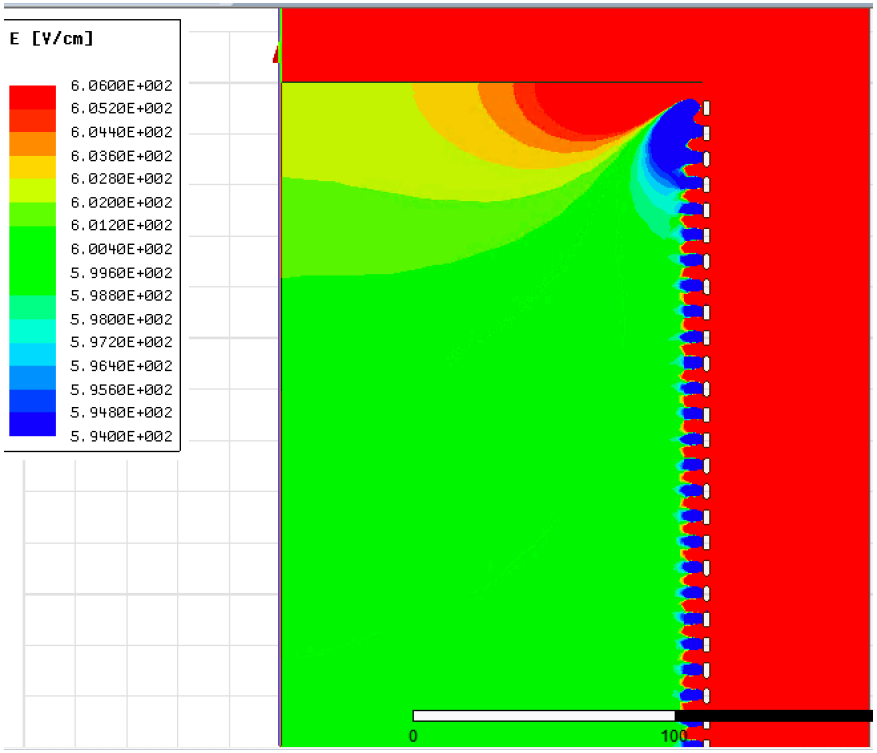


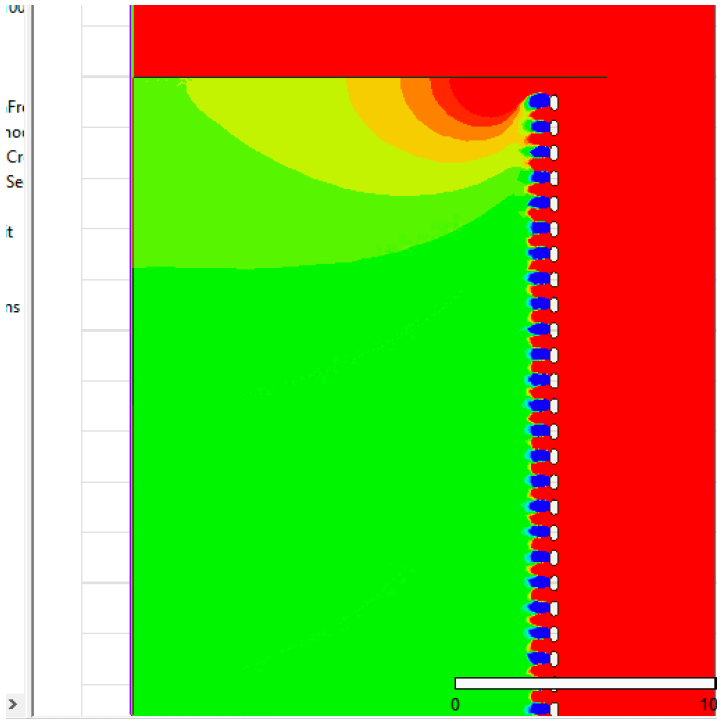




7 mm full / 3 mm empty

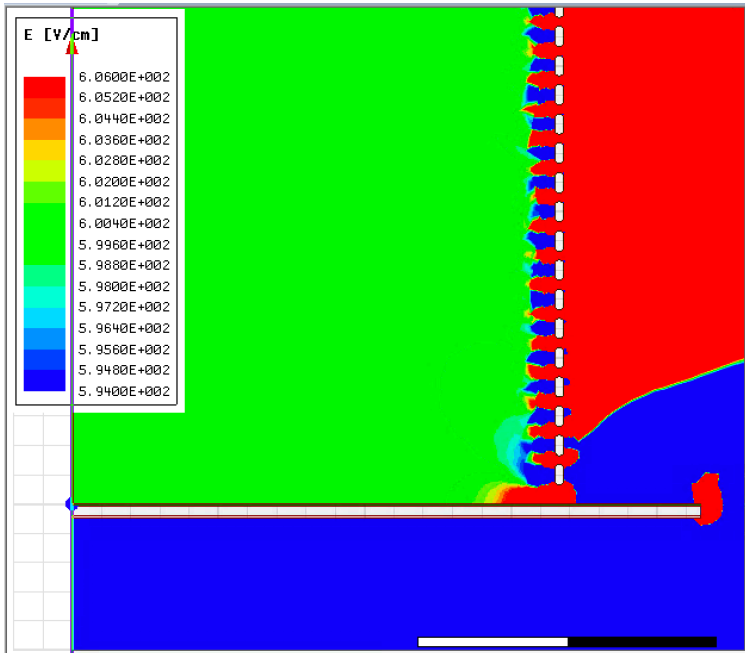
6 mm full / 4 mm empty

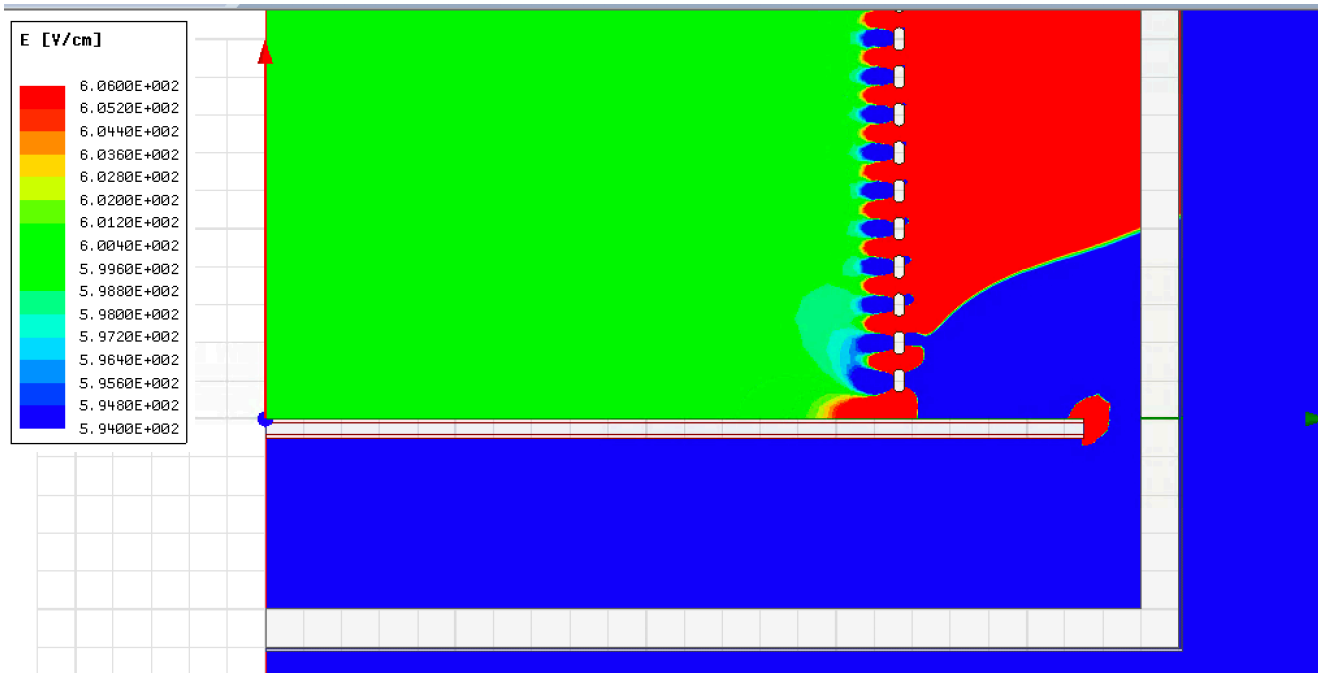
# 6 mm full/4 mm empty with cathode 20 mm beyond FC: drift field is even BETTER!! (showing 1%)



# 6 mm full/4 mm vs 7 mm full/4 mm



# 6 mm full/4 mm vs 7 mm full/4 mm