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G4MaterialPropertiesTable *LGsurface = new G4MaterialPropertiesTable();
  const G4int NLG = 6;
  G4double LGEnergy[NLG] = {1.*eV, 2.*eV, 3.*eV, 4.*eV, 5.*eV, 6.*eV};
  | // set all to 0, so it's lambertian
  G4double specularlobeRealVectorLG[NLG] = {0, 0, 0, 0, 0, 0};
  G4double specularspikeRealVectorLG[NLG] = {0, 0, 0, 0, 0, 0};
  G4double backscatterRealVectorLG[NLG] = {0, 0, 0, 0, 0, 0};

  LGsurface->AddProperty("SPECULARLOBECONSTANT", LGEnergy, specularlobeRealVectorLG, NLG);
  LGsurface->AddProperty("SPECULARSPIKECONSTANT", LGEnergy, specularspikeRealVectorLG, NLG);
  LGsurface->AddProperty("BACKSCATTERCONSTANT", LGEnergy, backscatterRealVectorLG, NLG);

  //G4double TransmittanceVector[NLG] = {0.02, 0.02, 0.02, 0.02, 0.02, 0.02};
  //LGsurface->AddProperty ("TRANSMITTANCE", LGEnergy, TransmittanceVector, NLG);

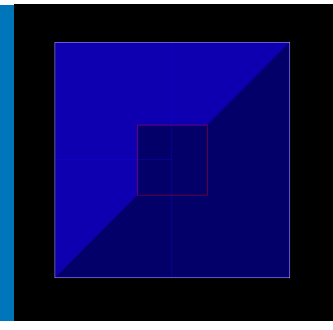
G4OpticalSurface* mirrorSurfaceLG = new G4OpticalSurface("MirrorSurfaceLG"); // Mirror polish
  | //mirrorSurface -> SetSigmaAlpha(0.01);
  mirrorSurfaceLG ->SetType(dielectric_metal);
  mirrorSurfaceLG ->SetFinish(ground);
  mirrorSurfaceLG->SetModel(unified);
  mirrorSurfaceLG -> SetMaterialPropertiesTable(LGsurface);

  new G4LogicalBorderSurface("LGtoWORLD", physiLG1, fPhysiWorld, mirrorSurfaceLG);
  new G4LogicalBorderSurface("LGtoWORLD", physiLG2, fPhysiWorld, mirrorSurfaceLG);
  new G4LogicalBorderSurface("LGtoWORLD", physiLG3, fPhysiWorld, mirrorSurfaceLG);
  new G4LogicalBorderSurface("LGtoWORLD", physiLG4, fPhysiWorld, mirrorSurfaceLG);

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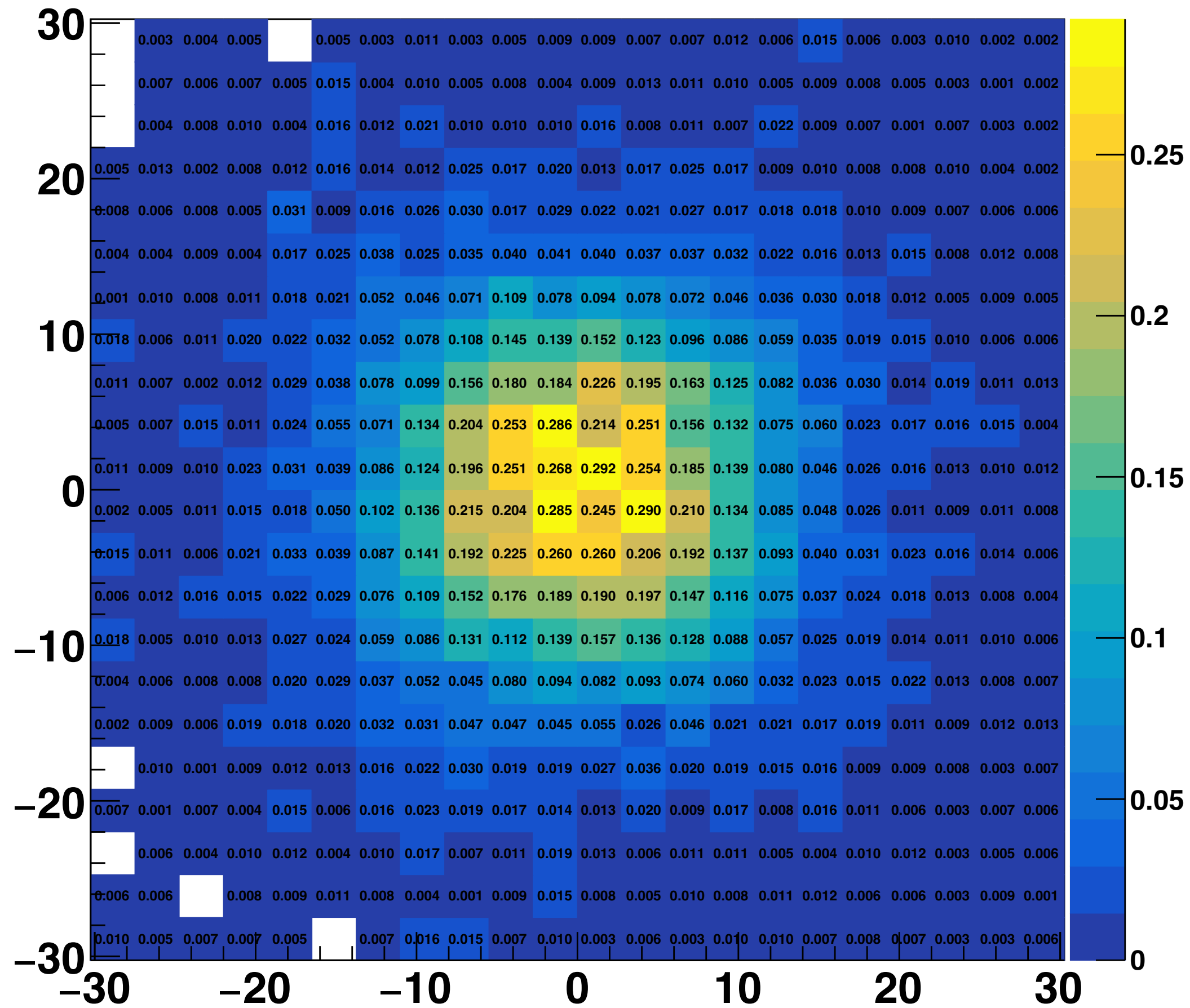
Geometry 6

PMMA



22x22 – Trap – 18 mm

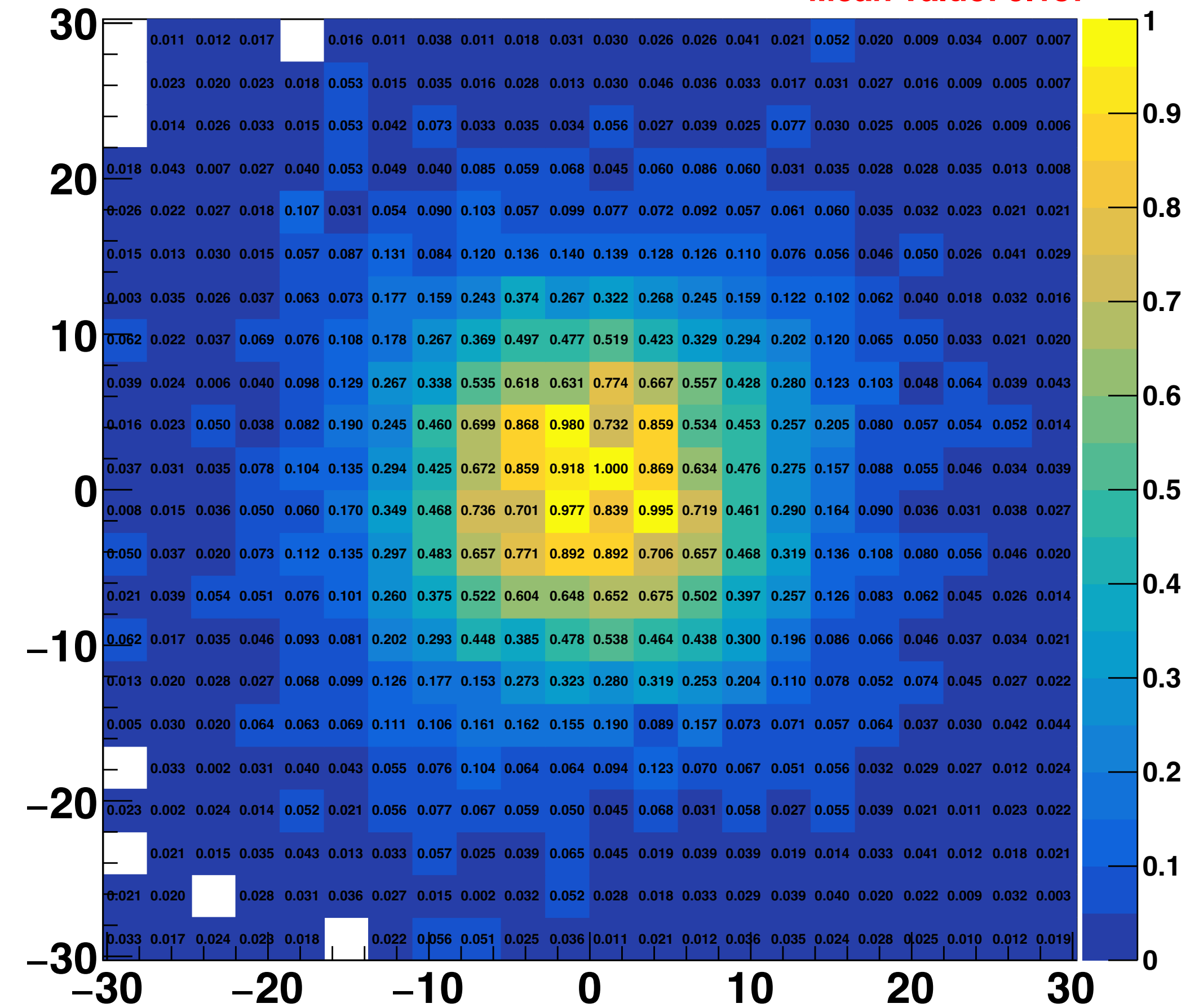
Efficiency - LG - PMMA - ground surf - 2cm - 22x22 - 18. mm



Homogeneity - LG - PMMA - ground surf 2cm - 22x22 - 18. mm

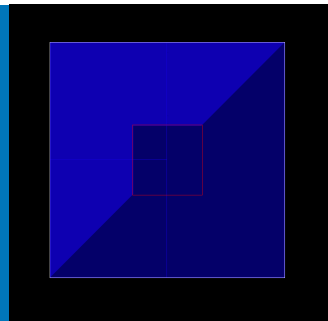
Standard deviation: 0.206

Mean value: 0.137



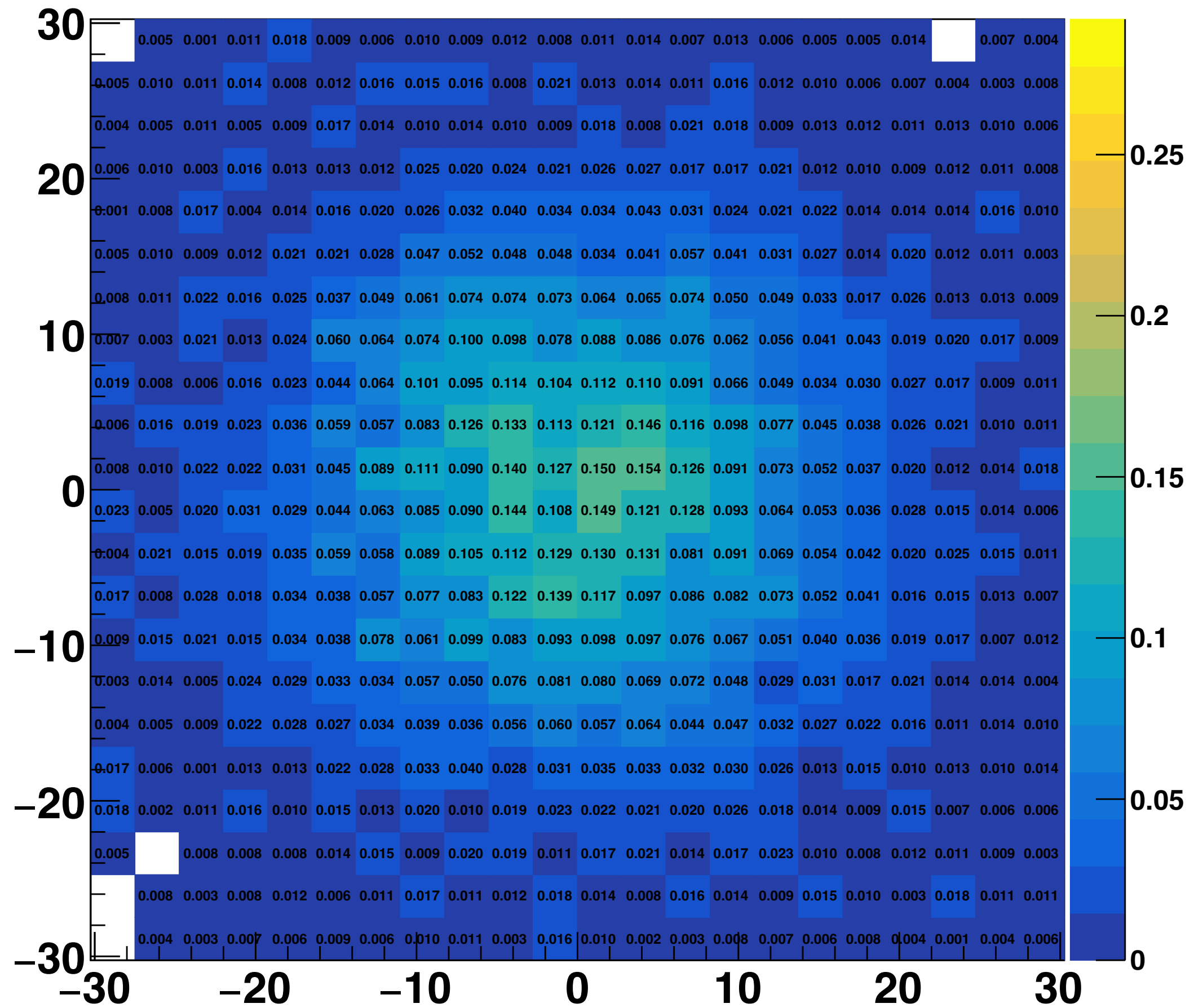
Geometry 6

PMMA



22x22 – Trap – 18 mm

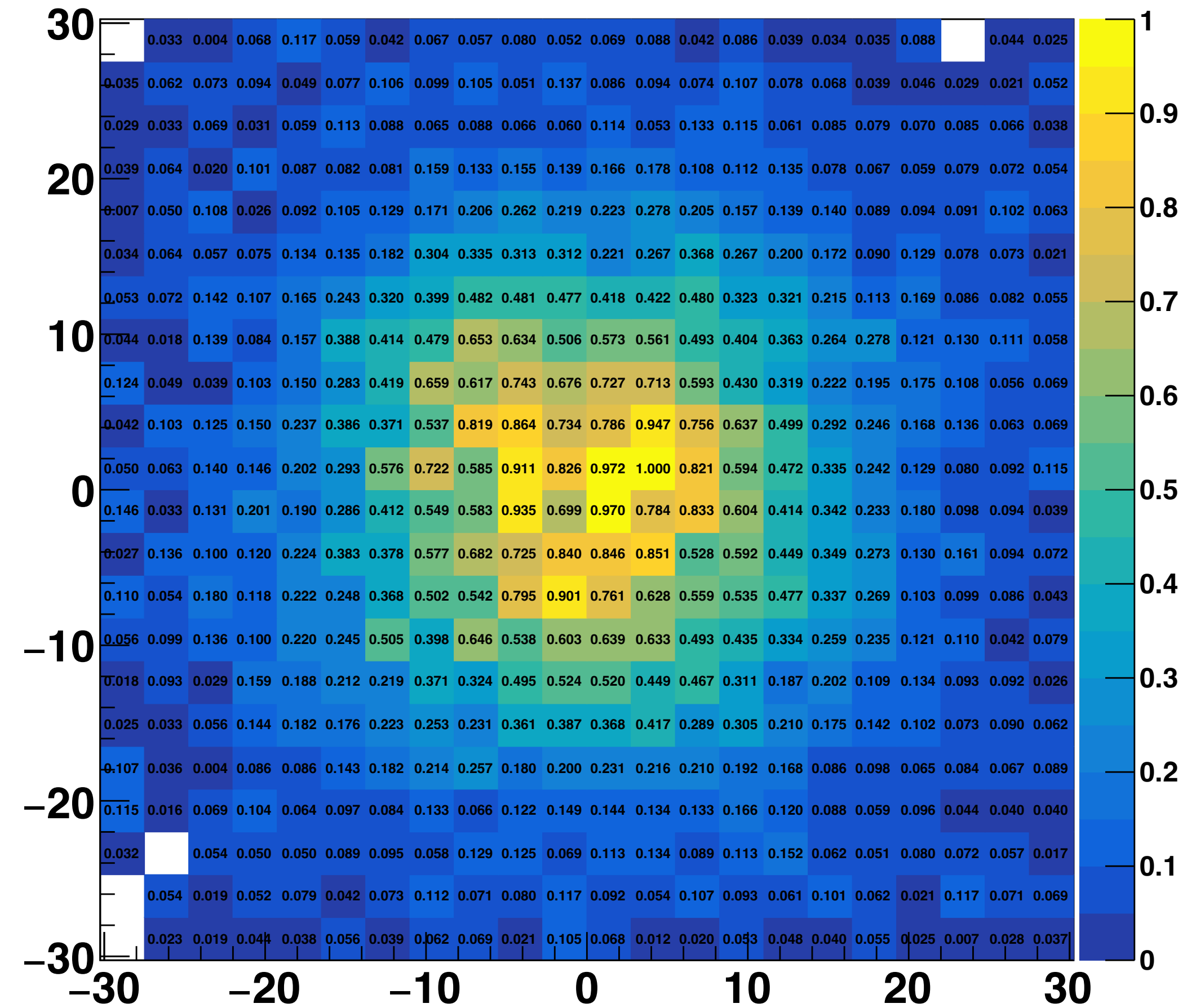
Efficiency - LG - PMMA - ground surf - 3cm - 22x22 - 18. mm



Homogeneity - LG - PMMA - ground surf 3cm - 22x22 - 18. mm

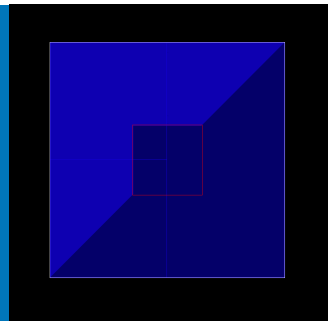
Standard deviation: 0.218

Mean value: 0.214



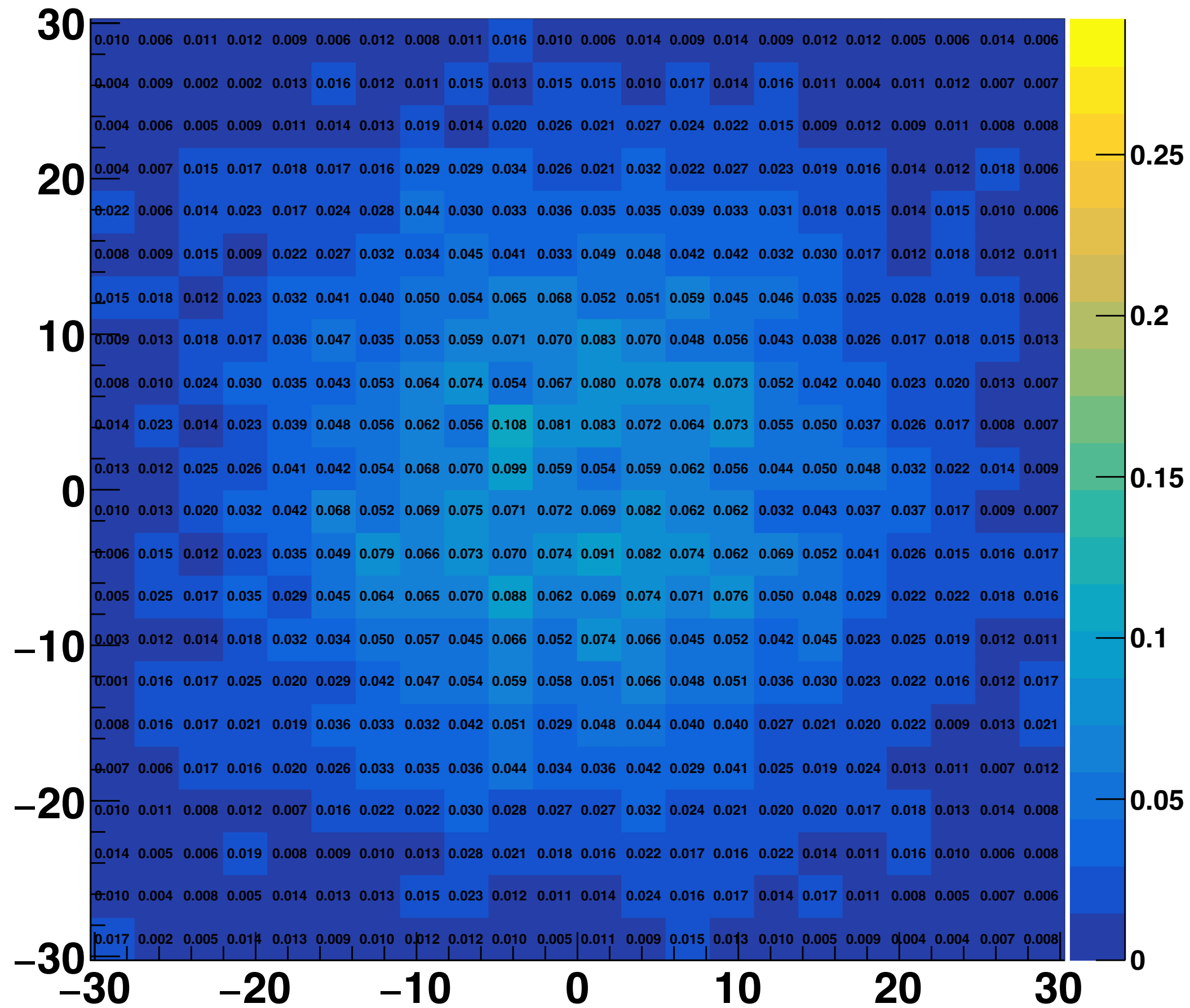
• Geometry 6

PMMA

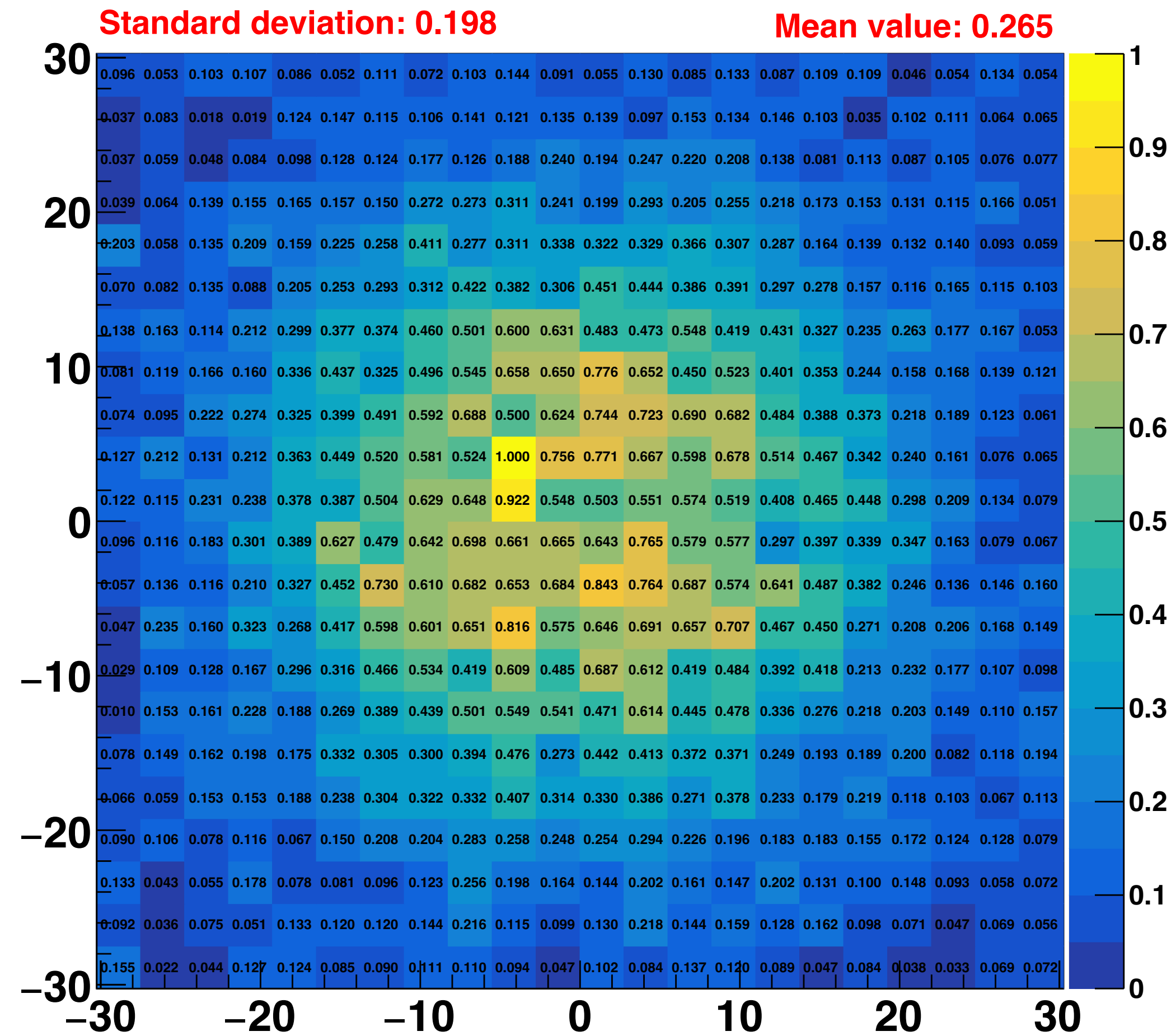


22x22 – Trap – 18 mm

Efficiency - LG - PMMA - ground surf - 4cm - 22x22 - 18. mm

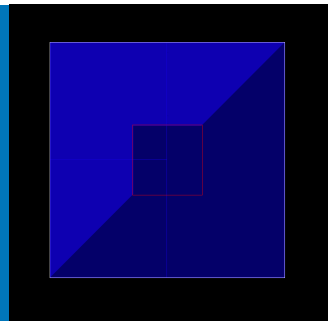


Homogeneity - LG - PMMA - ground surf 4cm - 22x22 - 18. mm



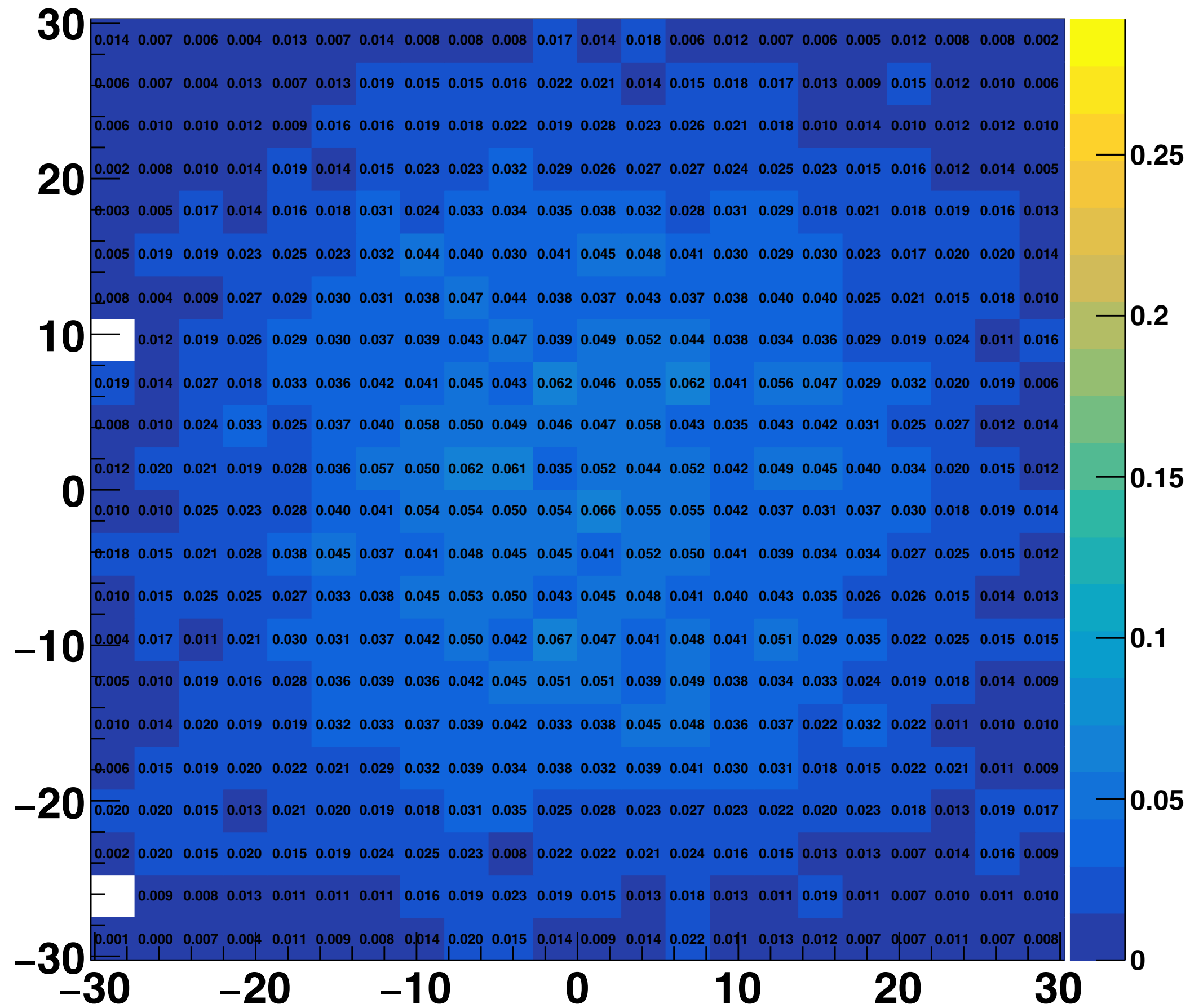
• Geometry 6

PMMA

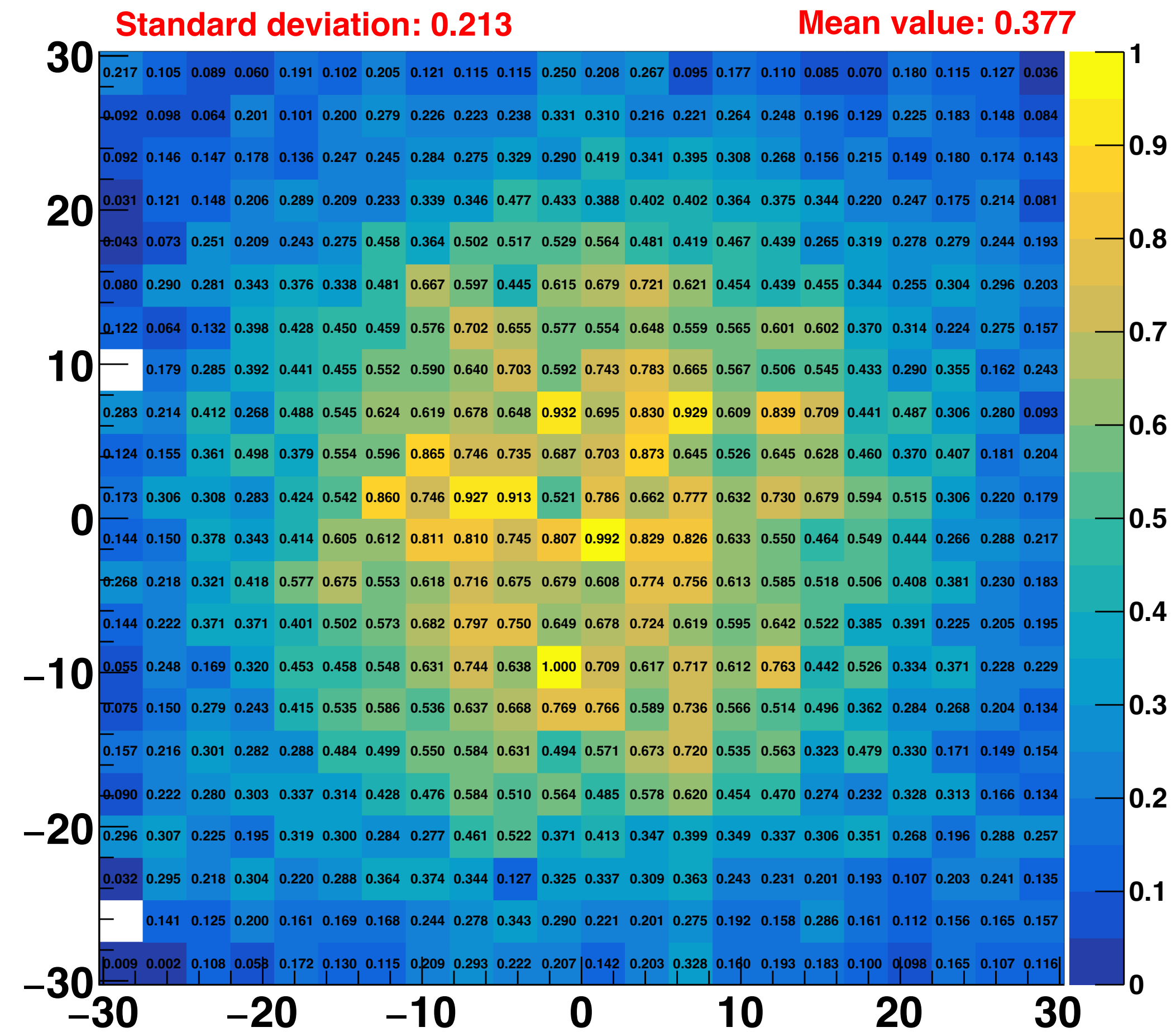


22x22 – Trap – 18 mm

Efficiency - LG - PMMA - ground surf - 5cm - 22x22 - 18. mm

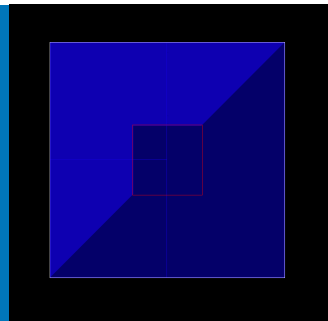


Homogeneity - LG - PMMA - ground surf 5cm - 22x22 - 18. mm



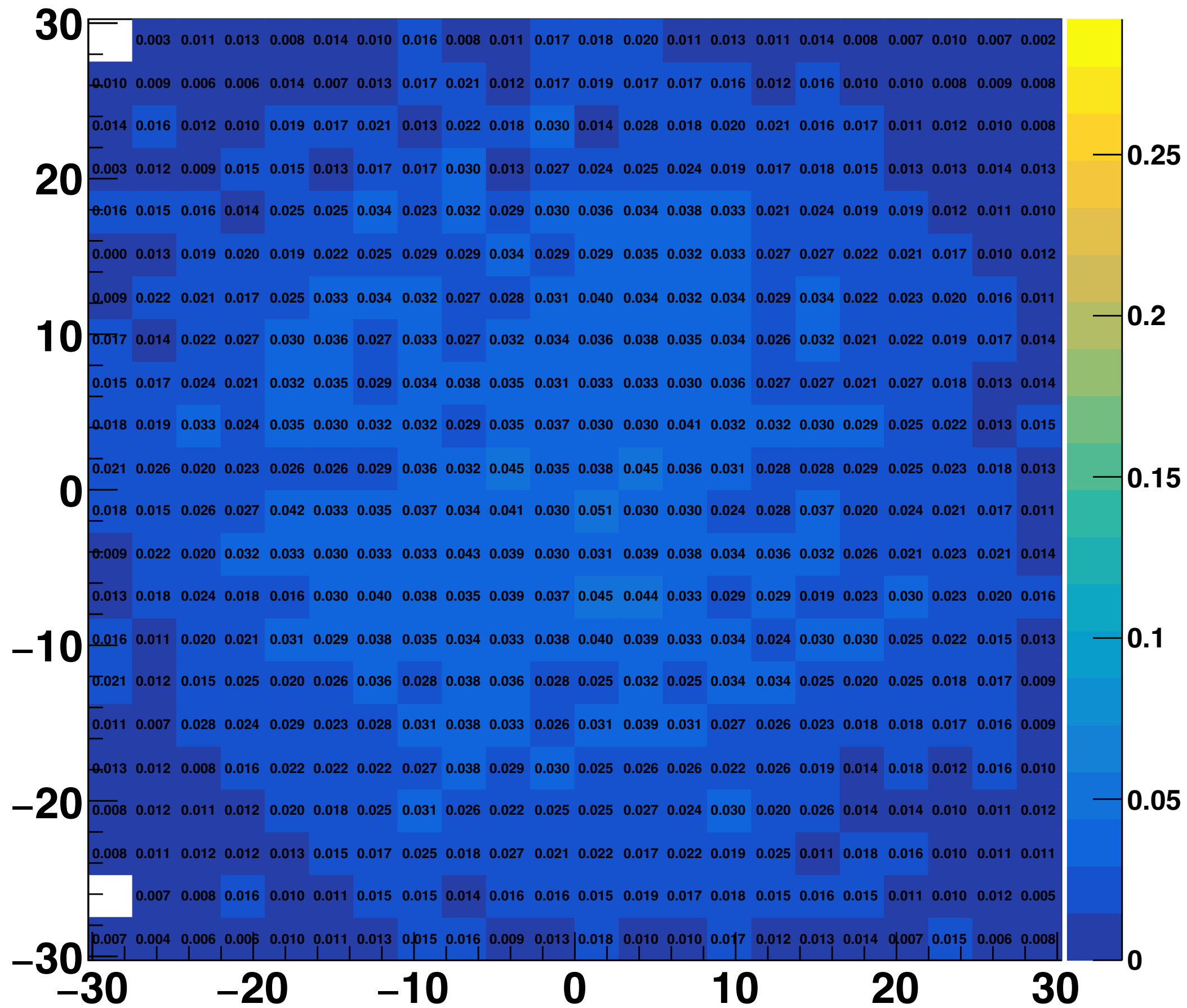
• Geometry 6

PMMA

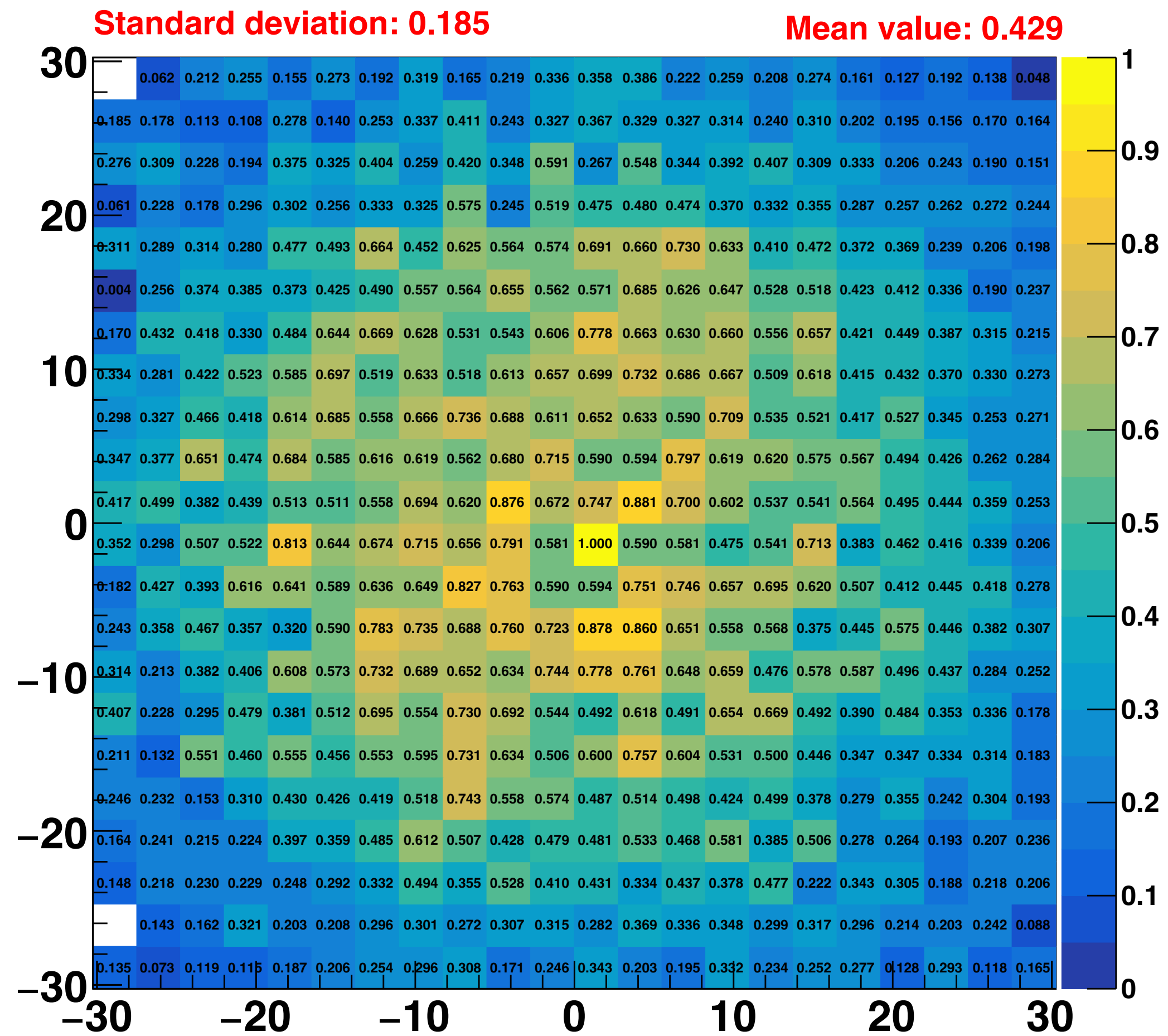


22x22 – Trap – 18 mm

Efficiency - LG - PMMA - ground surf - 6cm - 22x22 - 18. mm

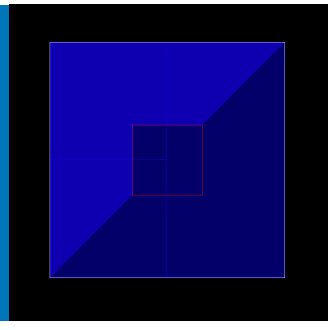


Homogeneity - LG - PMMA - ground surf 6cm - 22x22 - 18. mm



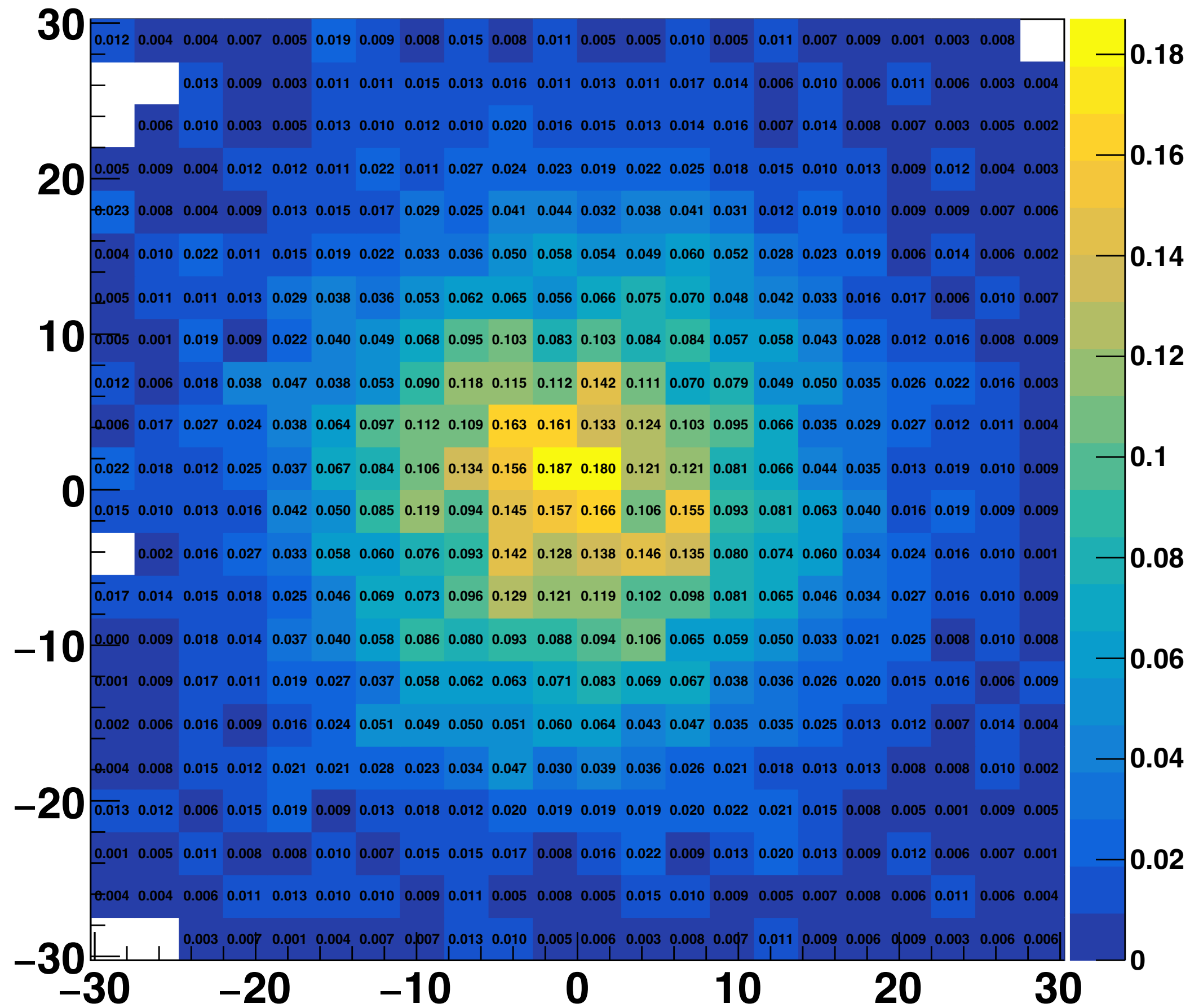
• Geometry 6

Air



22x22 – Trap – 18 mm

Efficiency - LG - AIR - 2cm - 22x22 - 18. mm



Factor non-uniformity - LG - Air - 2cm - 22x22 - 18. mm

Standard deviation: 0.197

Mean value: 0.176

