

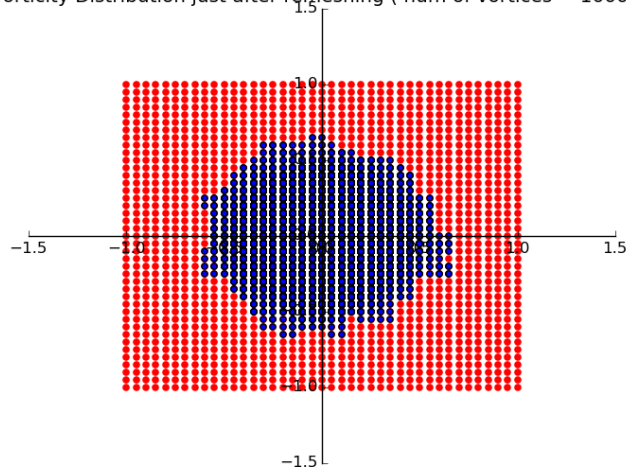
AE 625 -Particle Methods in Fluid Flow
Simulation
Assignment 6: Report
Diffusion of a point Vortex using RVM

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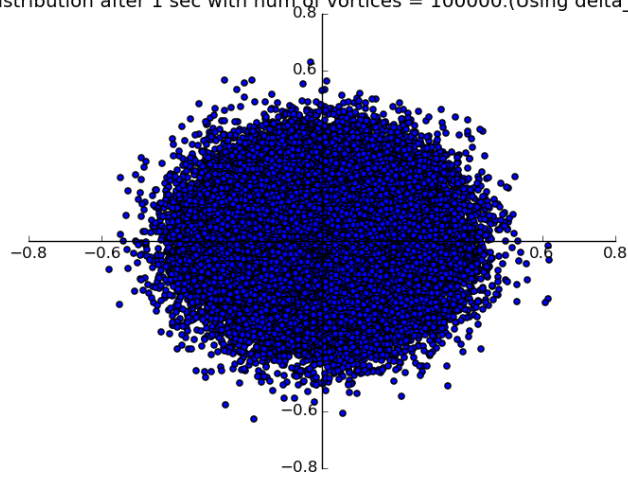
Remeshing and Vortex Blob distribution and Relative Error Distribution

Gridsize = 41 * 41
x_limit = -2to2
y_limit = -2to2

Vorticity Distribution just after remeshing (num of vortices = 100000)



ticity distribution after 1 sec with num_of vortices = 100000.(Using delta_t = 0.1



Relative Error Profile with grid size = 8x8

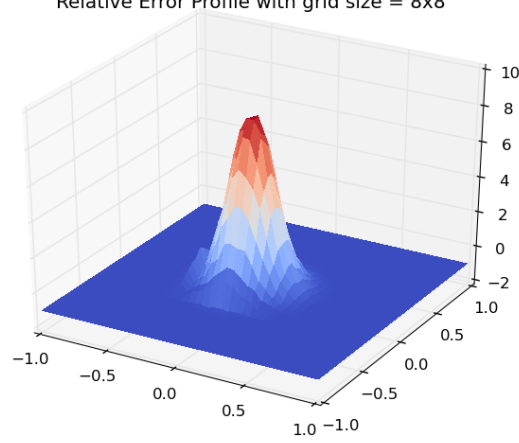


Figure 1: Comparison between the RVM method and Exact Solution

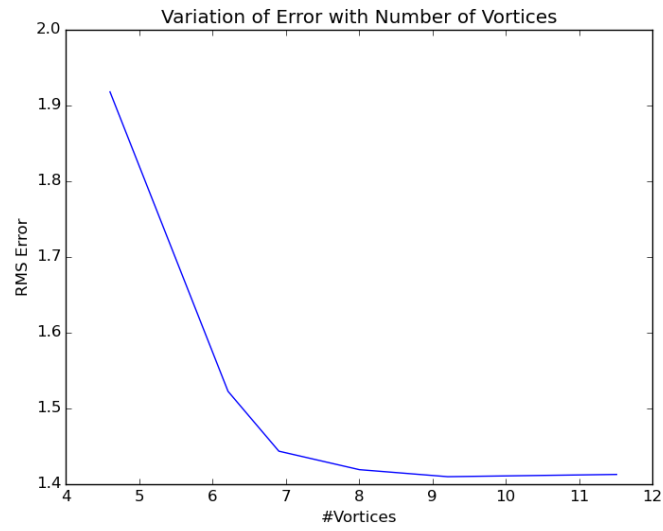


Figure 2: Variation of RMS error with number of vortices