

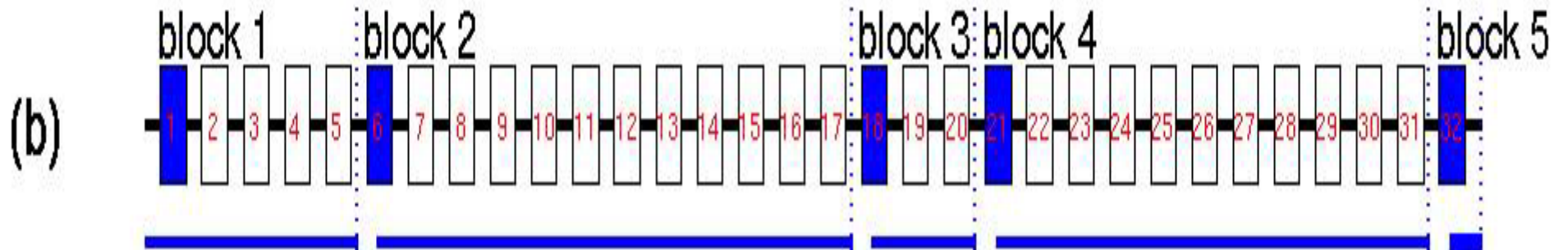
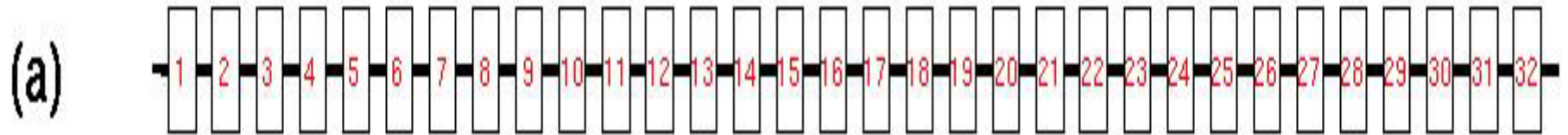
2D Bayesian Blocks for GLAST Source Detection

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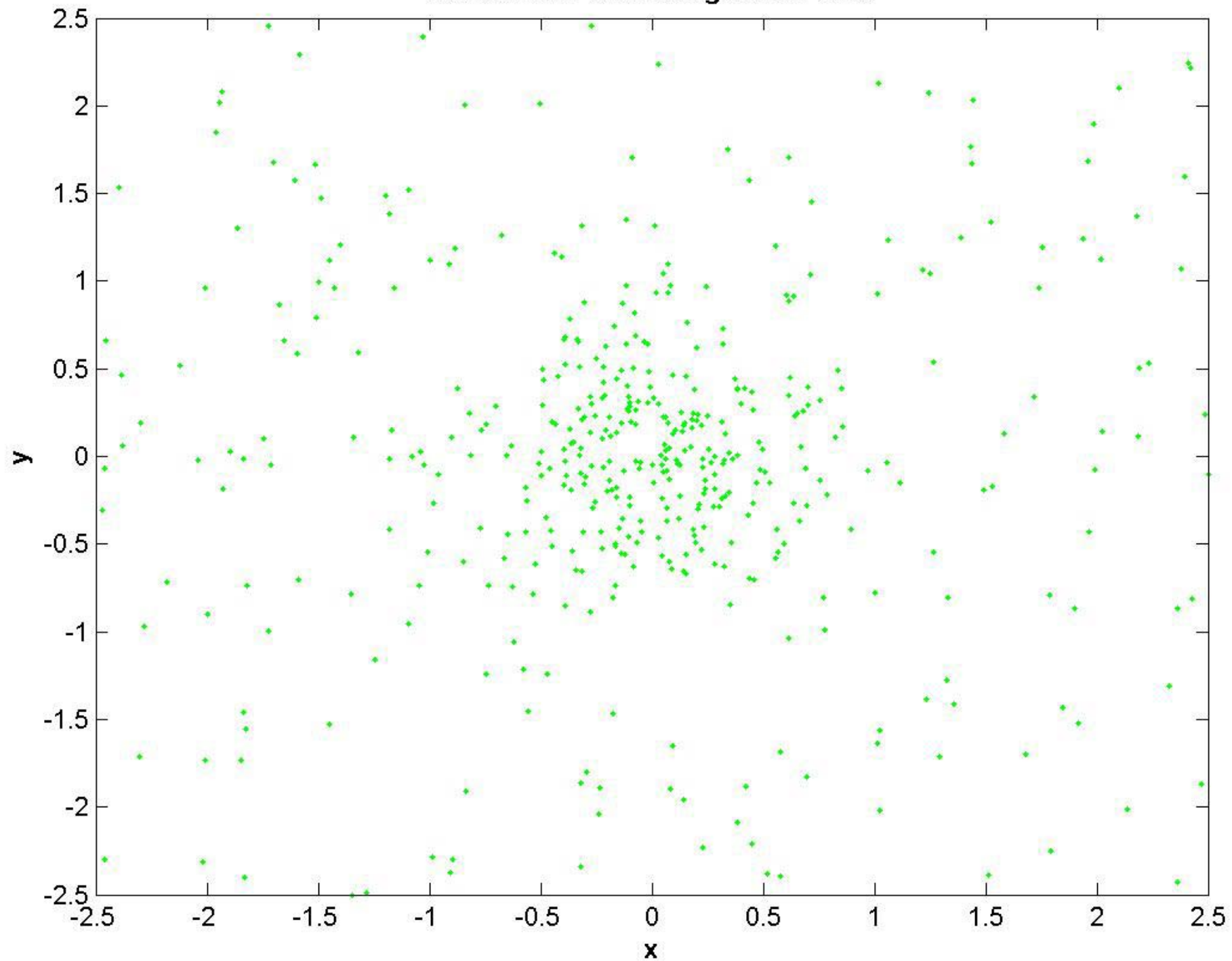
Collaborators:

Brad Jackson, Mathematics Department, San Jose State University
Jay Norris, NASA Goddard Spaceflight Center

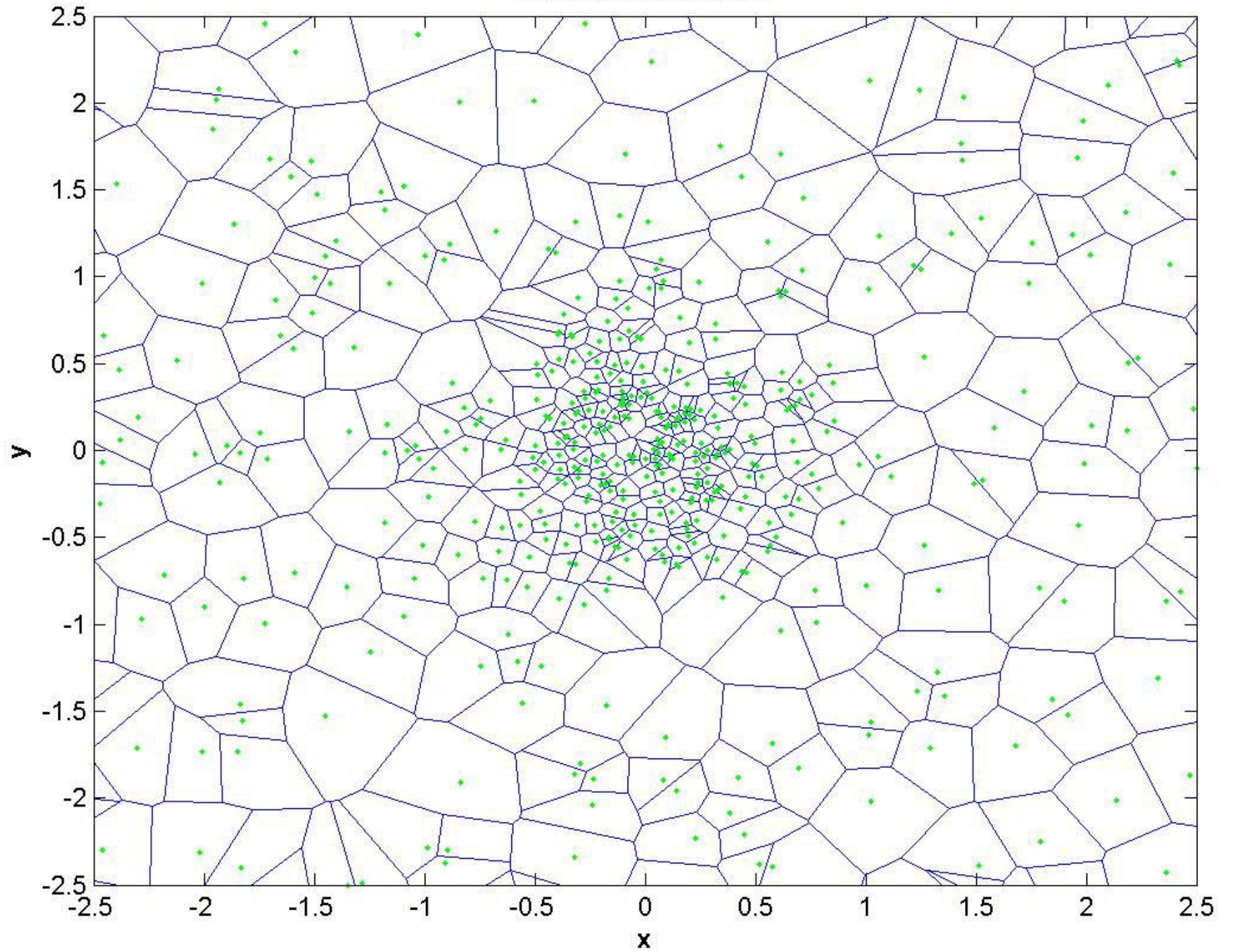
CELLS and BOCKS



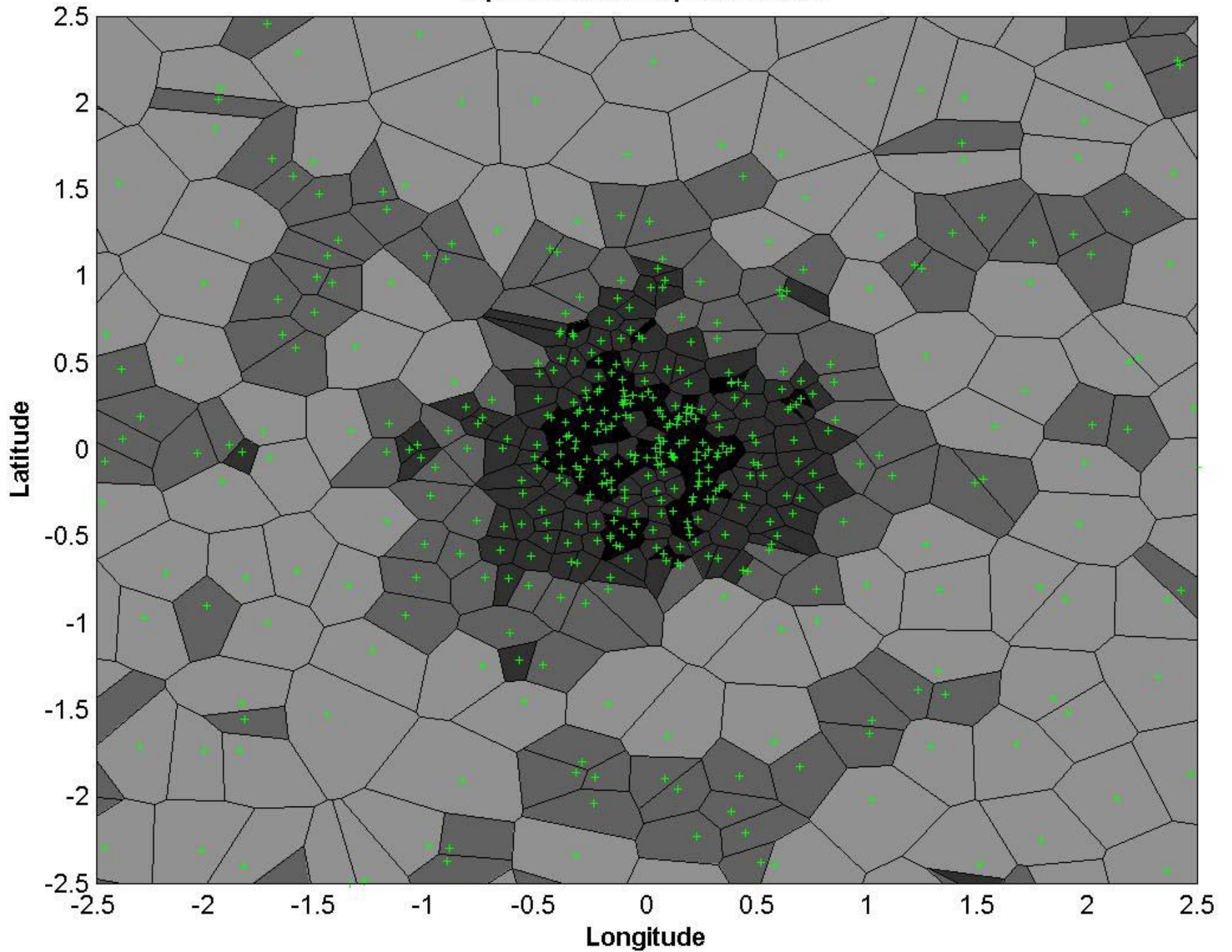
256 Normal + 512 Background Points



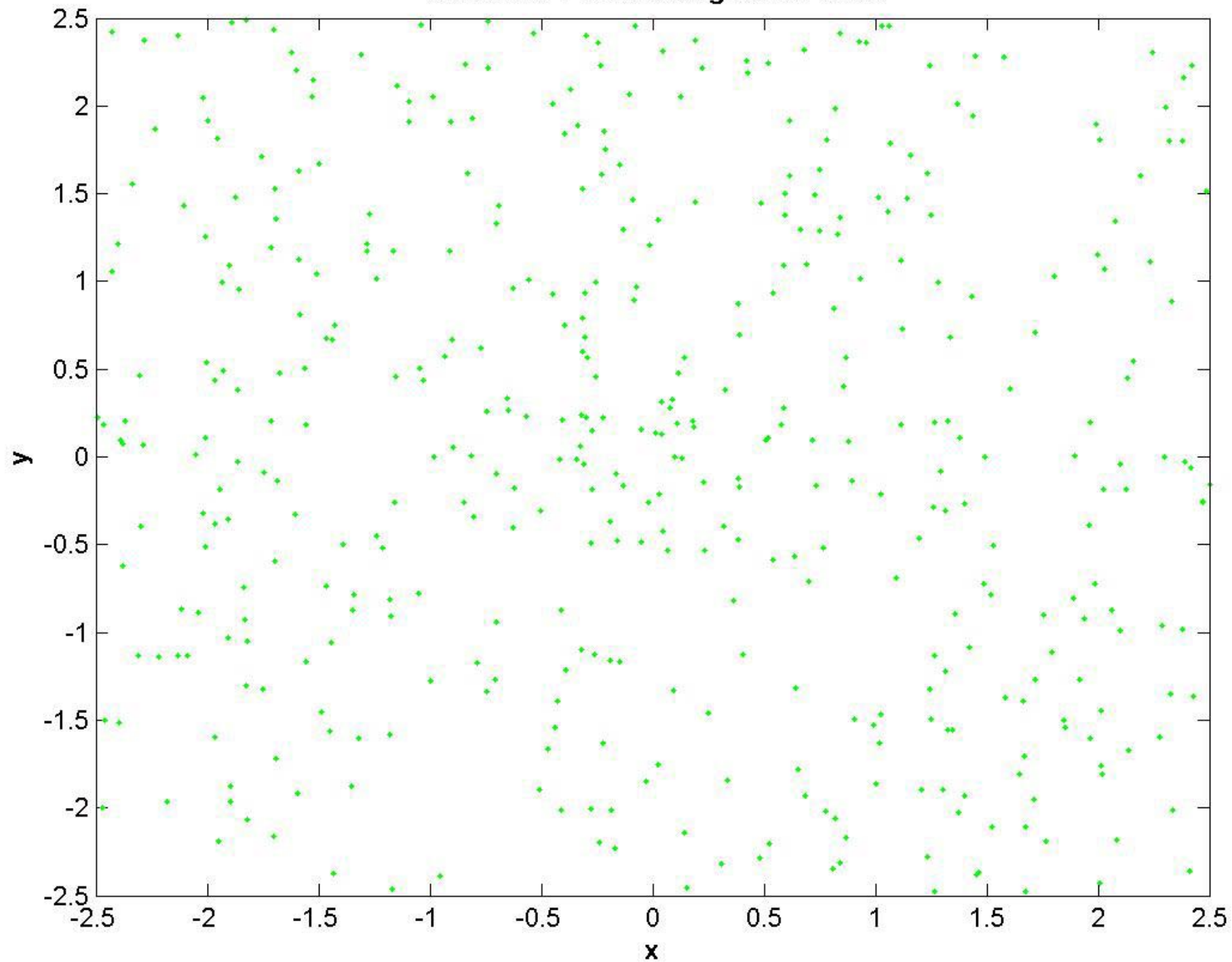
Voronoi Tessellation



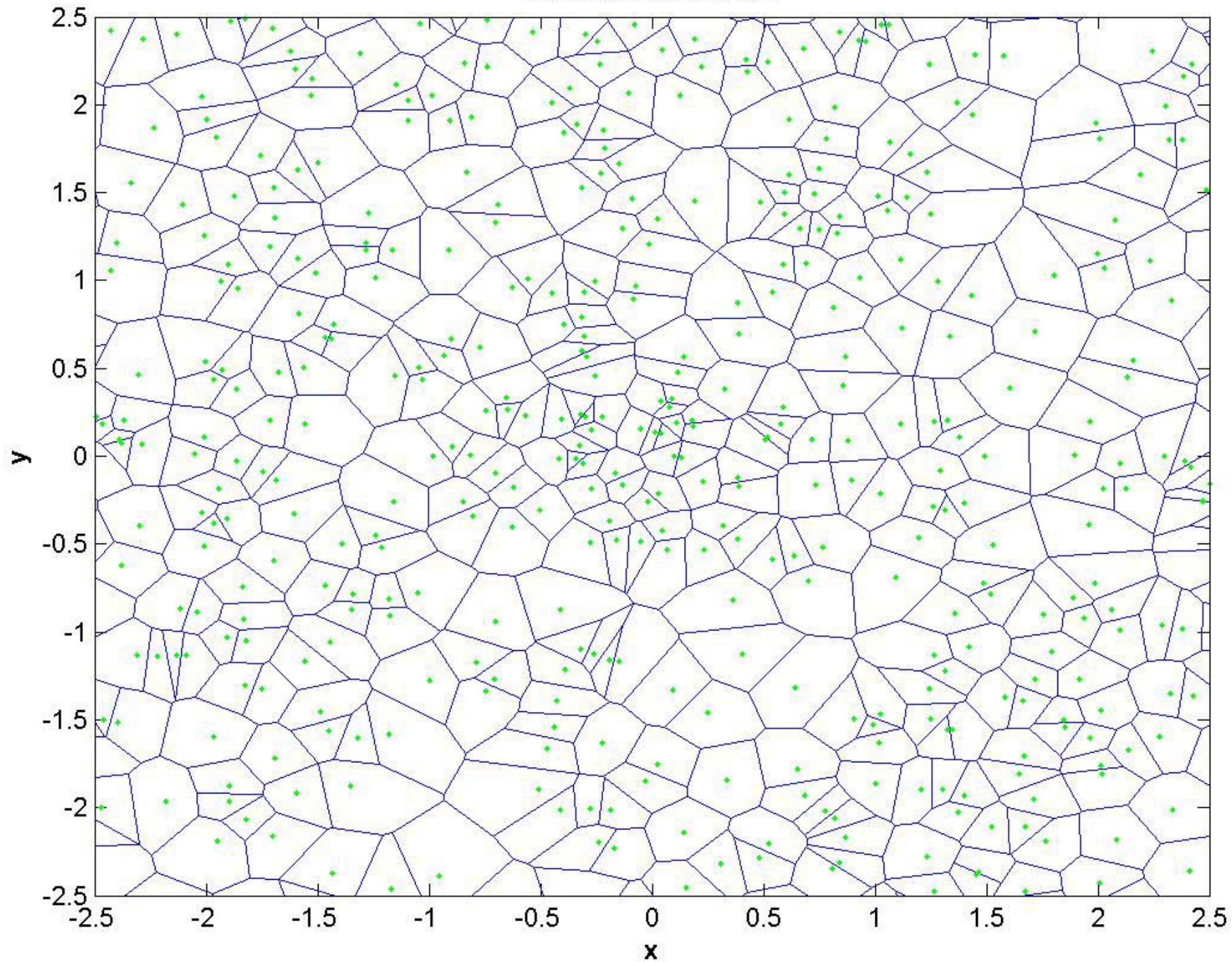
Optimal Block Representation



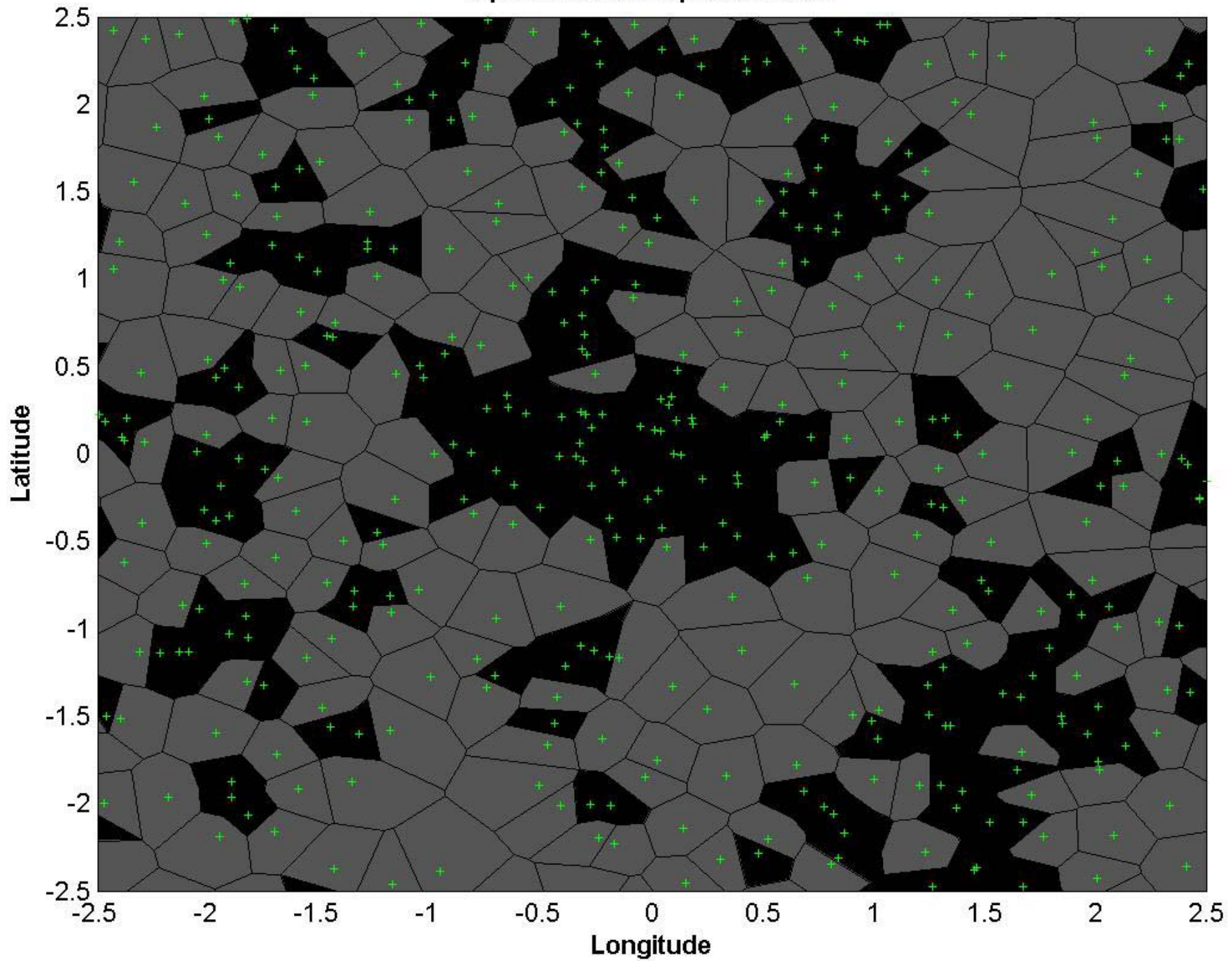
32 Normal + 1024 Background Points



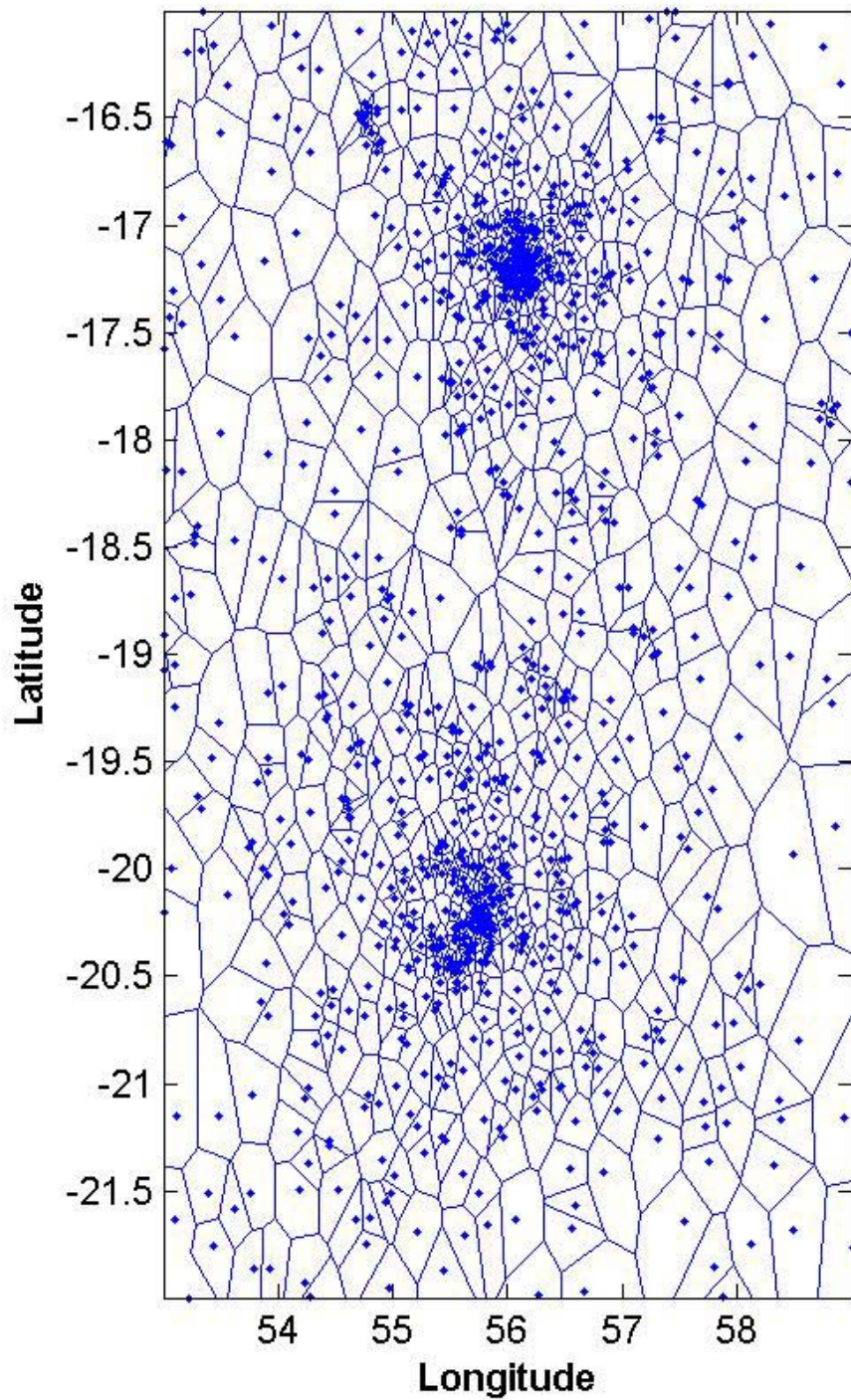
Voronoi Tessellation



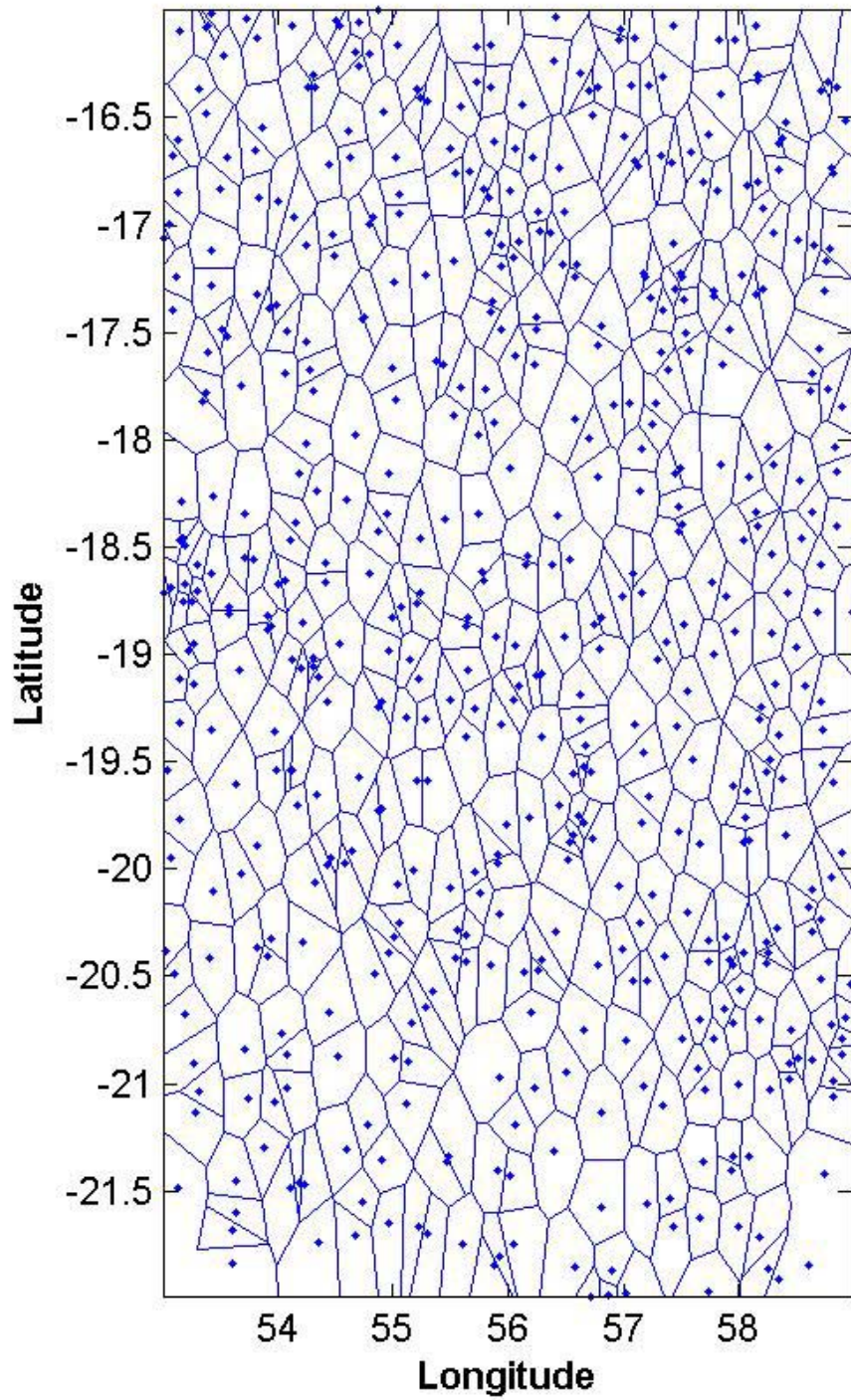
Optimal Block Representation

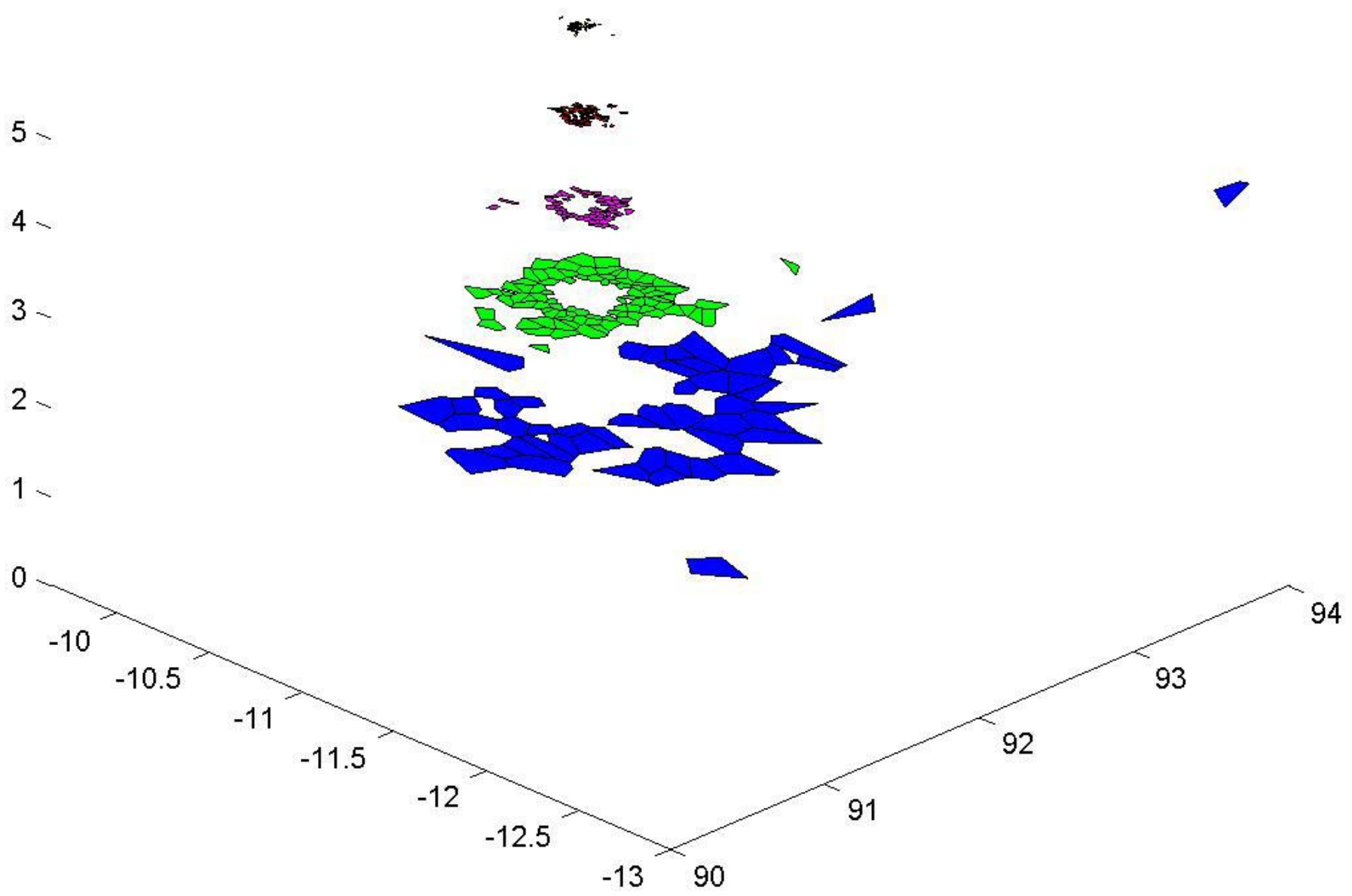


Point Sources

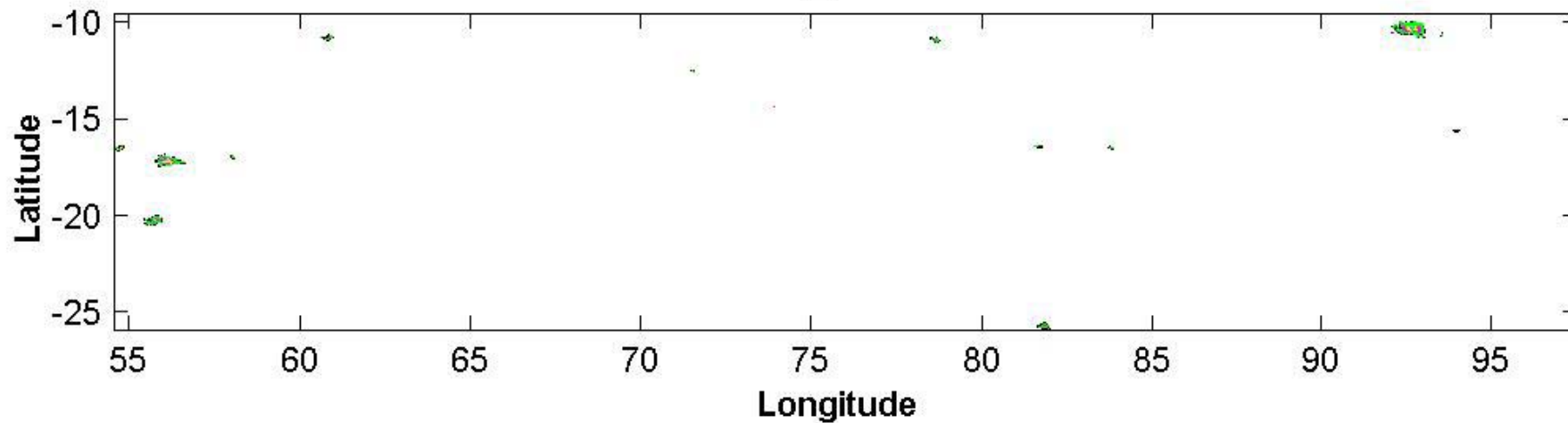
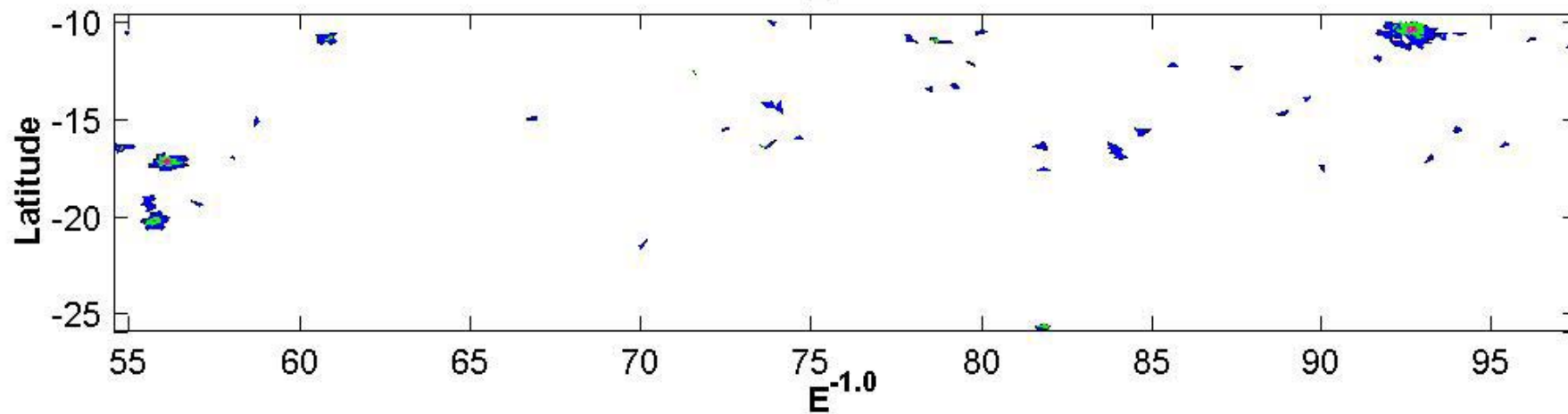
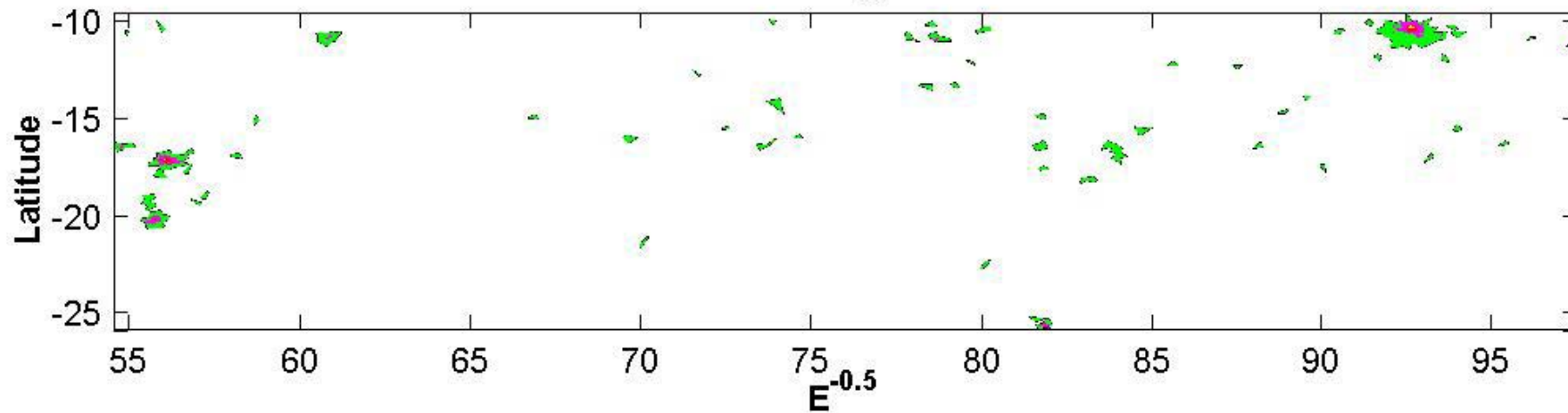


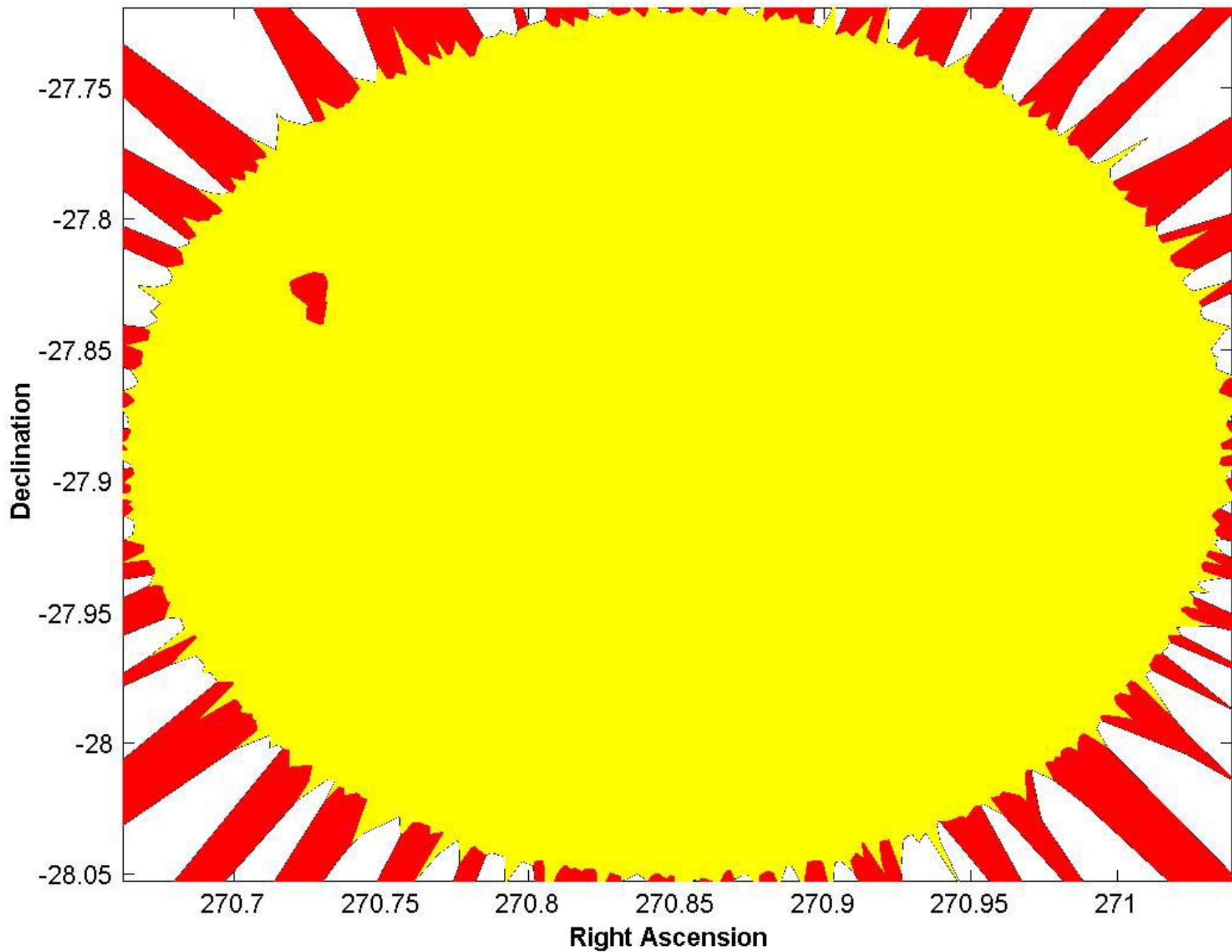
Diffuse Background

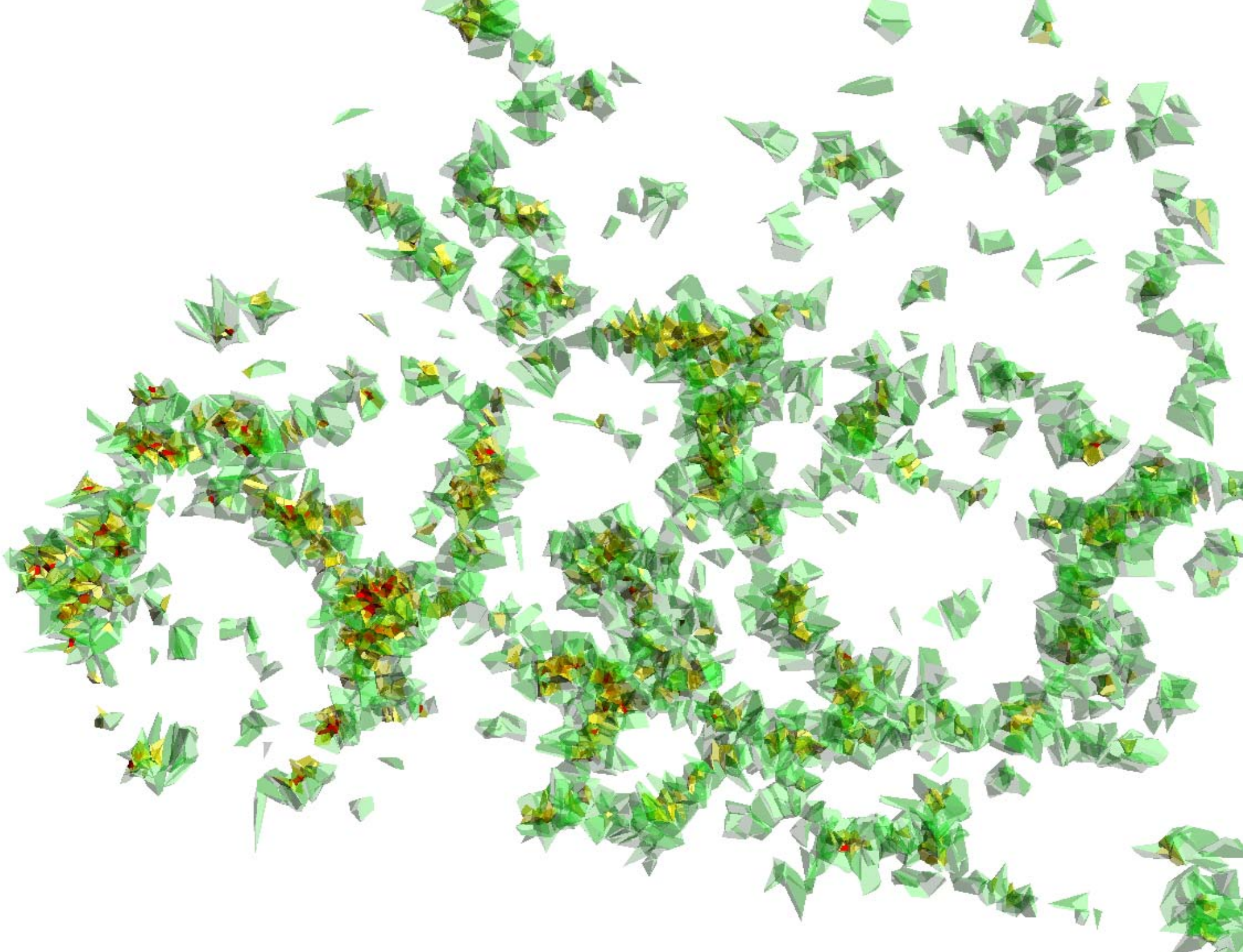




No weights







Problems

- ✓ Gaps
- ✓ Efficiency (“exposure”) variation
- ✓ Multichannel data
- ✓ Real-time analysis

Point-spread function

dependent on position in the image
dependent on energy, etc.

Deadtime