Space Time Visualisation of Police Incidents

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Disturbance Call-Outs

- Examining a particular type of crime and its daily and weekly cycles.
Location and time both important ...

- Police location needs to match disturbance location

- Different places are likely start-points for public order problems at different times of day...
The Point Pattern in Space and Time
Smoothed visualisation
Isosurfaces – extending risk map in time
Consider the contours ‘floating’ in spacetime
Join them up – obtain a 2D surface in 3D space
Finally – fill out the wire frame to get the surface...
Isosurfaces in practice

- OpenDX – IBM open source software for scientific visualization
- Analyst needs to be able to interact with the isosurface – and see associated risk maps for any given time-slice (snapshot)
Further Extensions...

- Representing disorder using VR

Further Reading ....