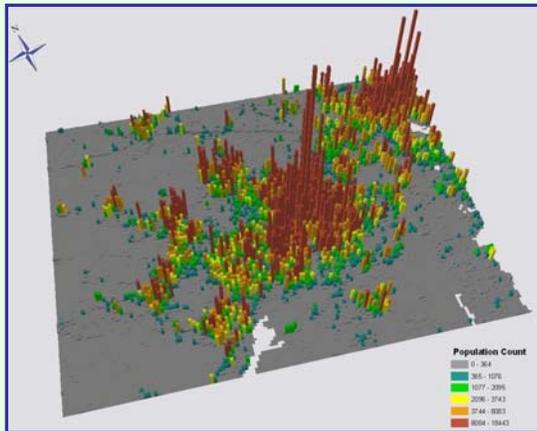


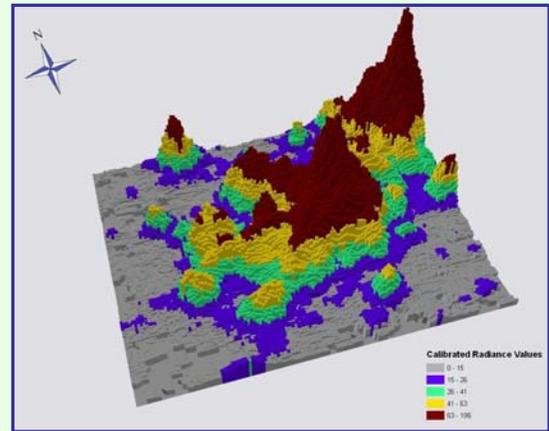
Spatial Correlations in Population and Nighttime Lights for Washington D.C., Metropolitan Area

Kathleen Abercrombie, Aarthy Sabesan, Auroop R Ganguly

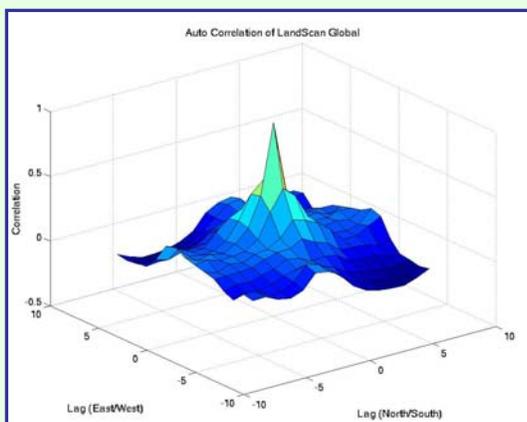
LandScan Global Population



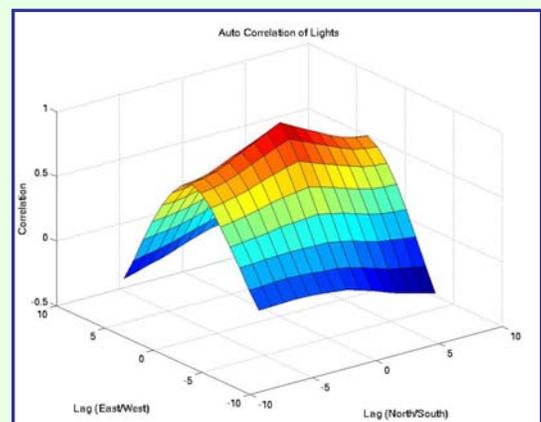
Nighttime lights



Spatial Auto-Correlations

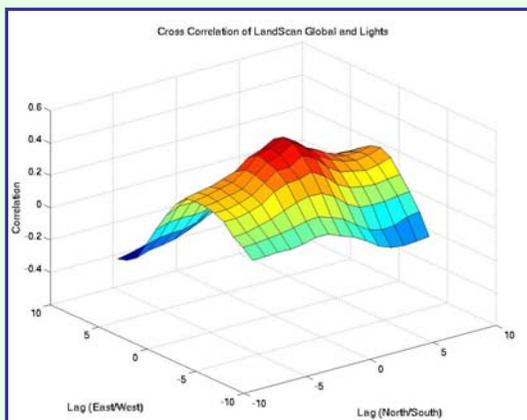


High auto-correlations for small lags but decays sharply with distance and depends on the direction

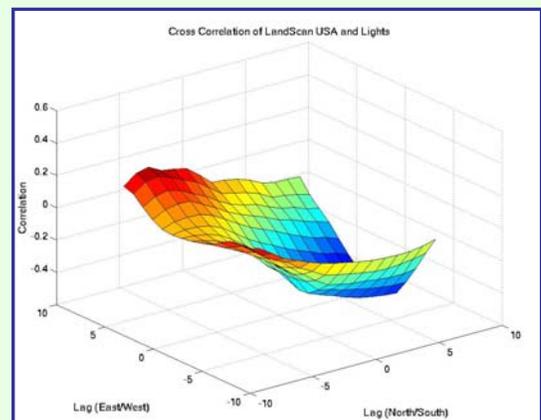


Auto-correlation decays gradually and exhibits strong directional orientation

Spatial Cross-Correlations



Cross-correlation with Lights relatively higher for lower-resolution LandScan Global



Cross-correlation of Lights with higher-resolution LandScan USA significantly lower

Data Source: LandScan USA and Global population datasets from GIST group at ORNL. Nighttime lights from NGDC at NOAA



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