

SOTON-WAIS @ SED2013

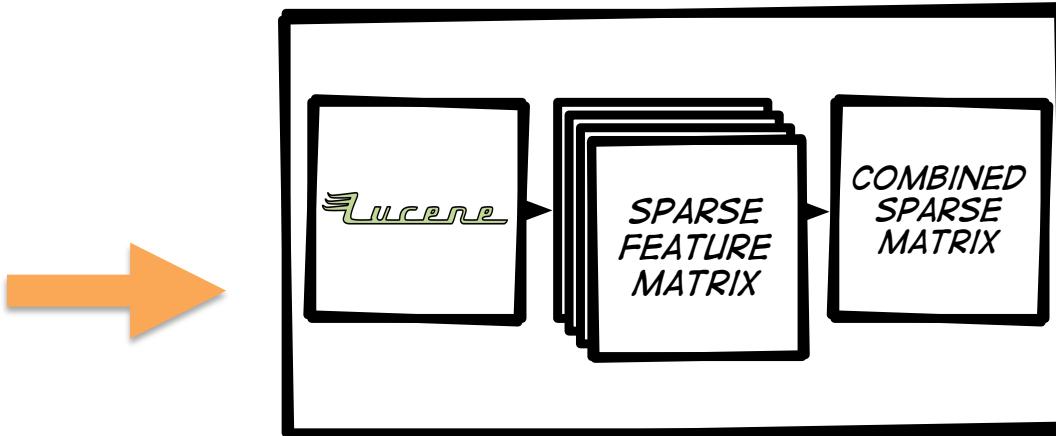
SPARSE FEATURES AND INCREMENTAL
DENSITY BASED CLUSTERING

SINA SAMANGOOEI



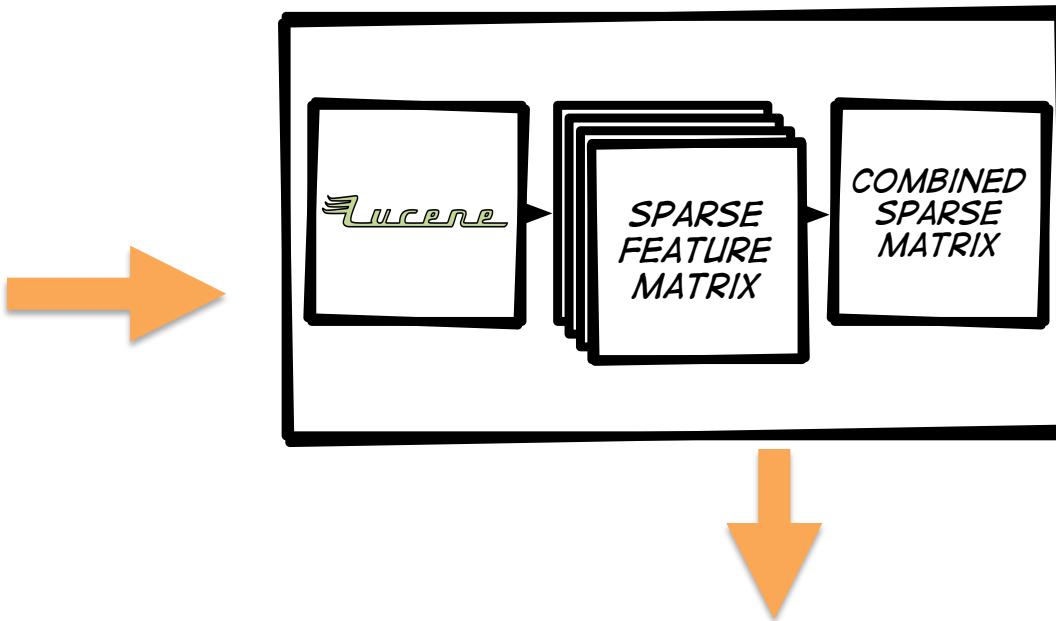


BUILD SPARSE MATRIX

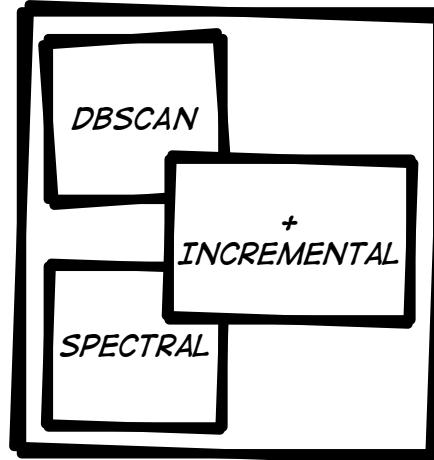




BUILD SPARSE MATRIX

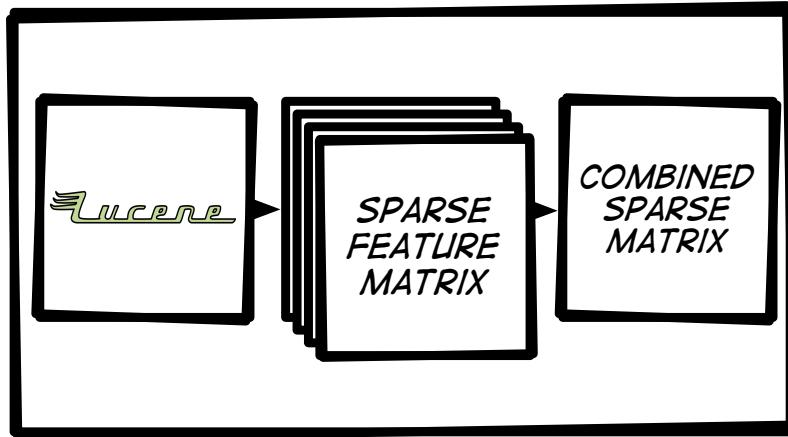


CLUSTER

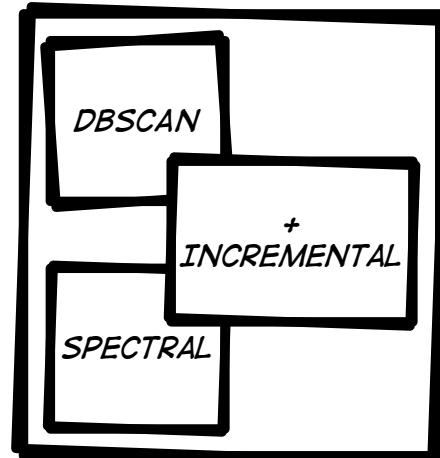




BUILD SPARSE MATRIX



CLUSTER



MAIN ACHIEVEMENTS

- CREATE *BIG* SPARSE SIMILARITY MATRICES
 - (QUICKLY)
- *OPEN SOURCE*
 - CLUSTERING, EXPERIMENTS... *THE LOT*
 - ...*OPENIMAJ*... WOO!
- *INCREMENTAL* CLUSTERING
 - SPECTRAL CLUSTERING WITH 300K ITEMS,
0.01 DENSITY.
 - HARD TO DO NAIVELY, TRY IN MATLAB OR PYTHON:

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eigsh(srand(300000,300000,0.001),1000)
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ASSUMING YOU HAVE *128GB RAM* IT'LL BE DONE SOON(ISH)