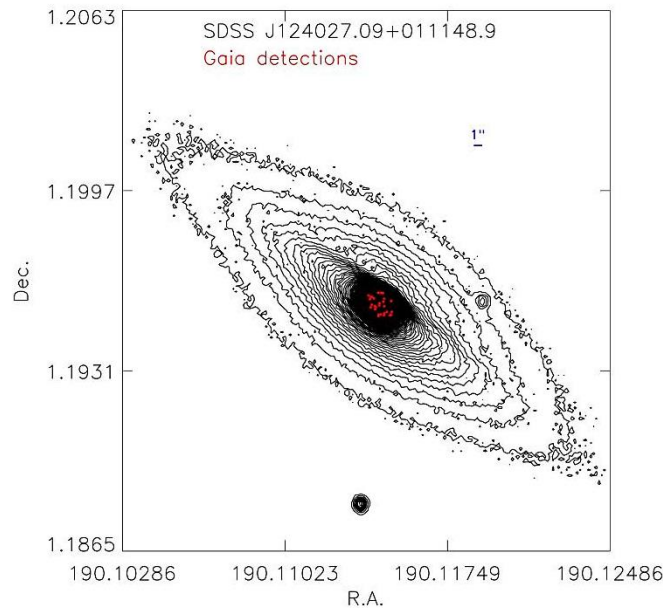


Gaia's Unresolved Galaxy Classifier (UGC) taxonomic schemes

A. KARAMPELAS, I. BELLAS-VELIDIS, J. SÁNCHEZ ALMEIDA,
A. DAPERGOLAS, M. KONTIZAS, E. KONTIZAS, P. GAVRAS

Gaia vs. SDSS DR12 cross-matching

600,000 galaxies



see
I. Bellas-Velidis
presentation

Challenges

Real vs. simulated spectra differences

High-z galaxies

Active galaxies

“External” Classification

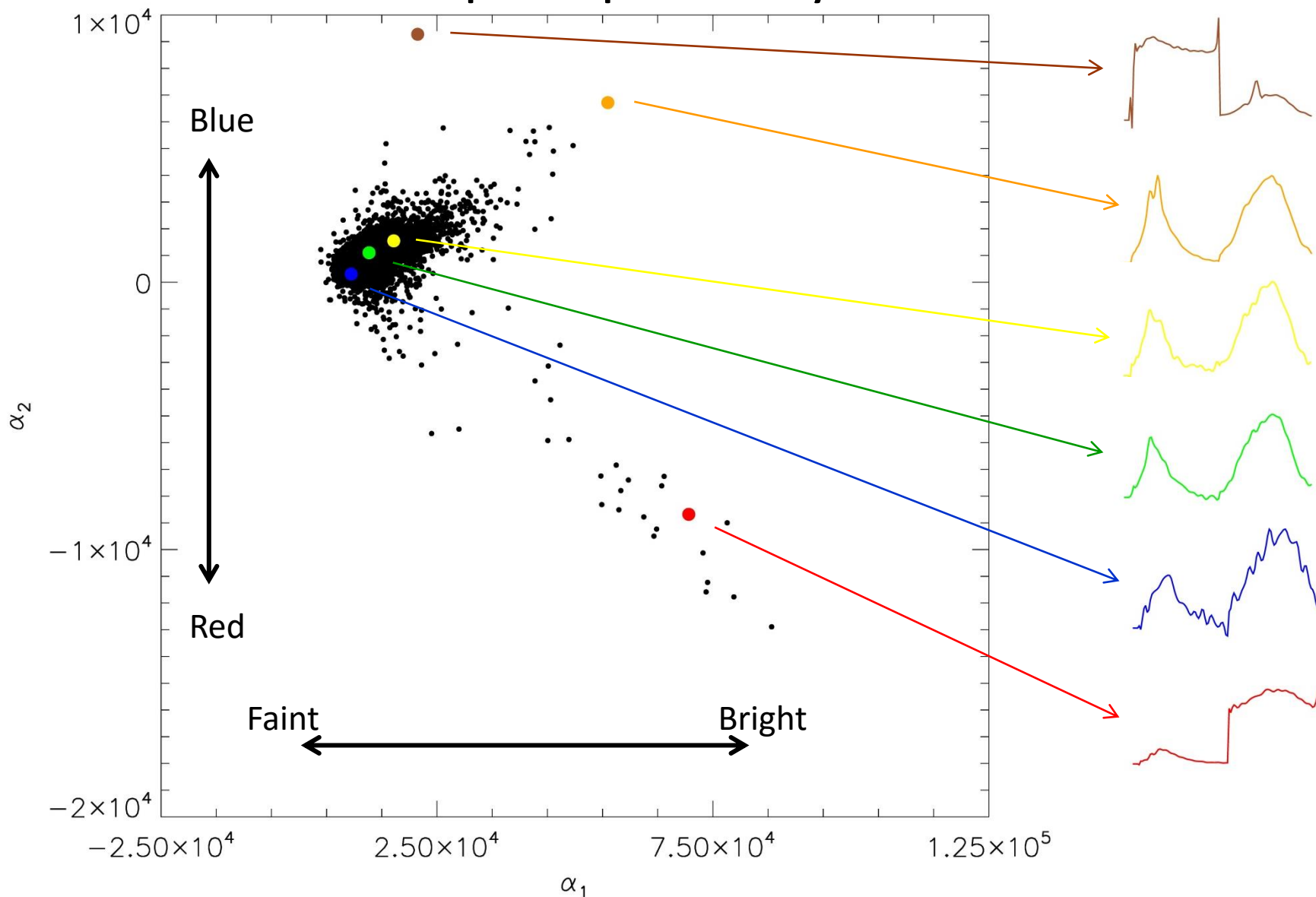
Principal Component Analysis (PCA)

Self-Organizing Map

SDSS ASK classification (K-means clustering)

Gaia's Unresolved Galaxy Classifier (UGC) taxonomic schemes

Principal Component Analysis



Gaia's Unresolved Galaxy Classifier (UGC) taxonomic schemes

Self-Organizing Map

Unsupervised ANN that retains
the input topology

