

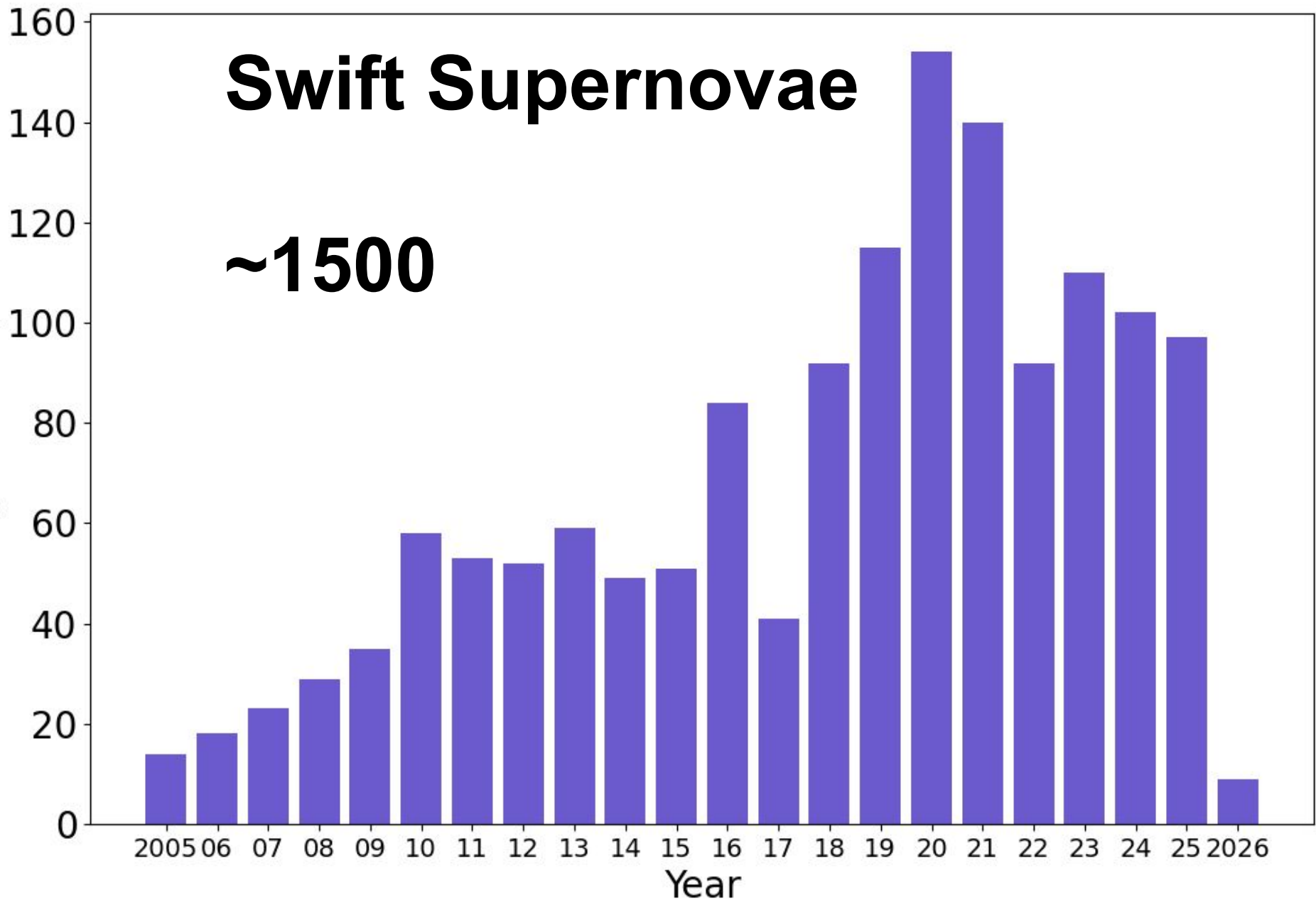
S wift
O ptical
U ltraviolet
S upernova
A rchive
Value-added Catalog

Dr. Peter J. Brown
Texas A&M University



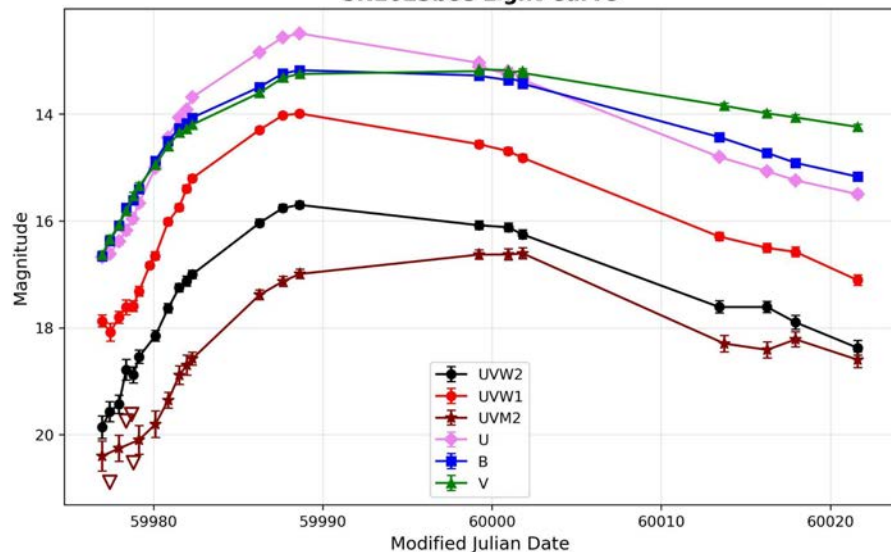
Swift Supernovae

~1500

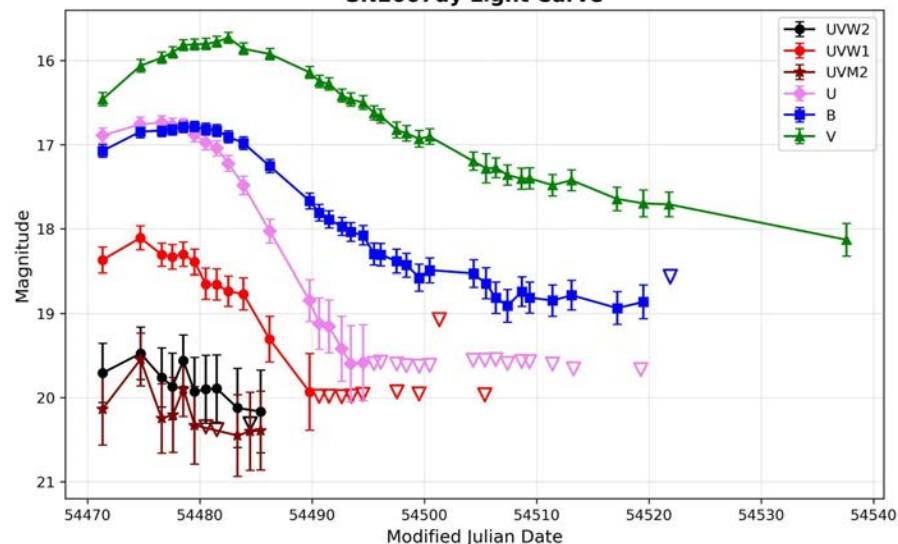


Example Swift UVOT Light Curves

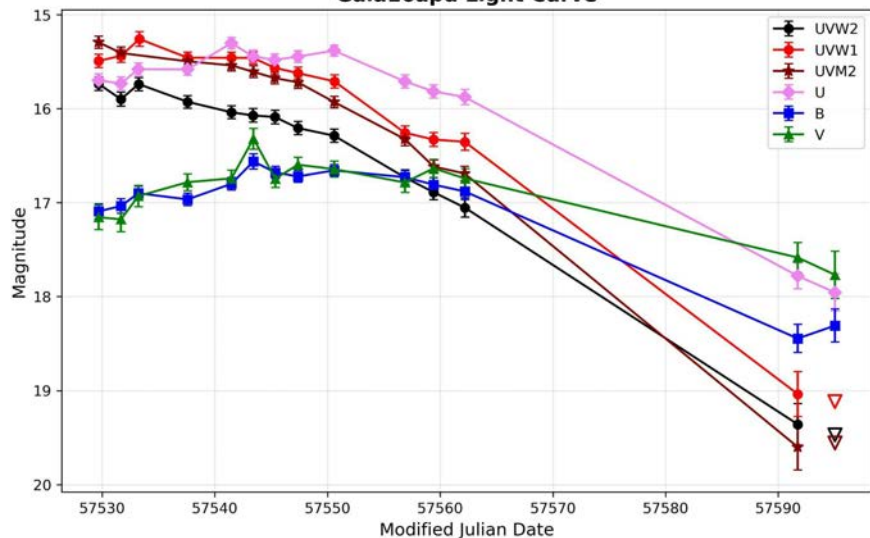
SN2023bee Light Curve



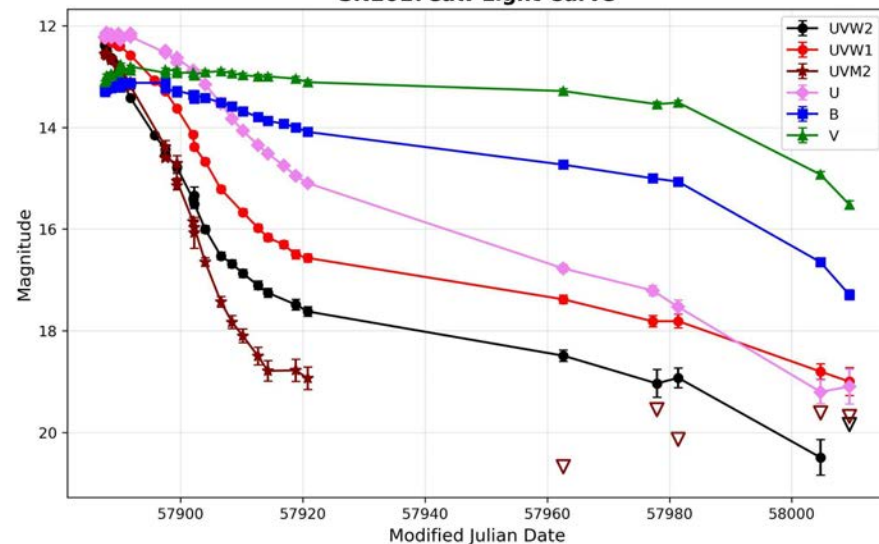
SN2007uy Light Curve



Gaia16apd Light Curve

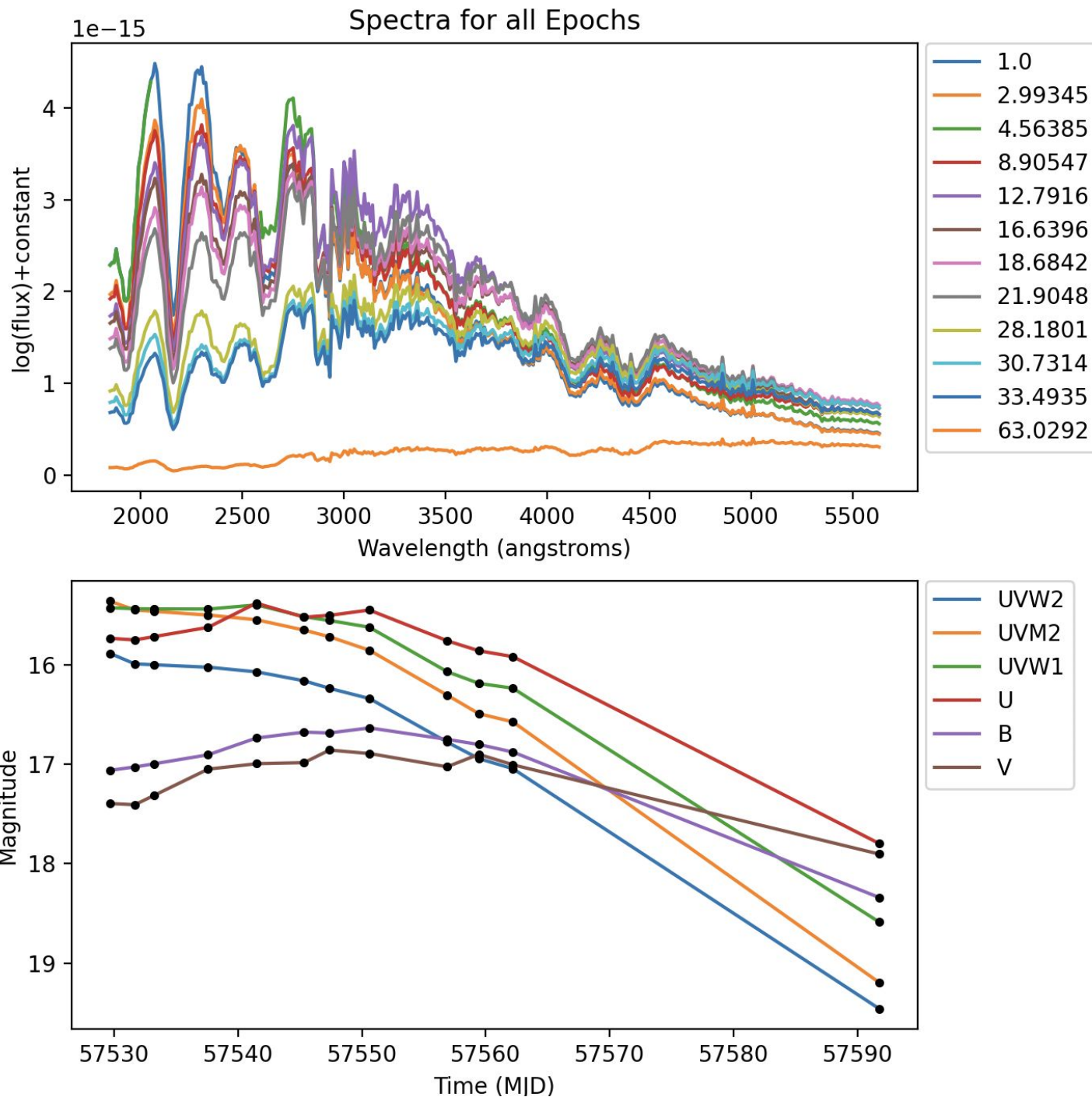


SN2017eaw Light Curve



AGGIE NOVA TEMPLATES

A spectrum is fit to each photometry epoch to compute extinction, bolometric, and k corrections



Flux Conversion factors depend on the spectrum

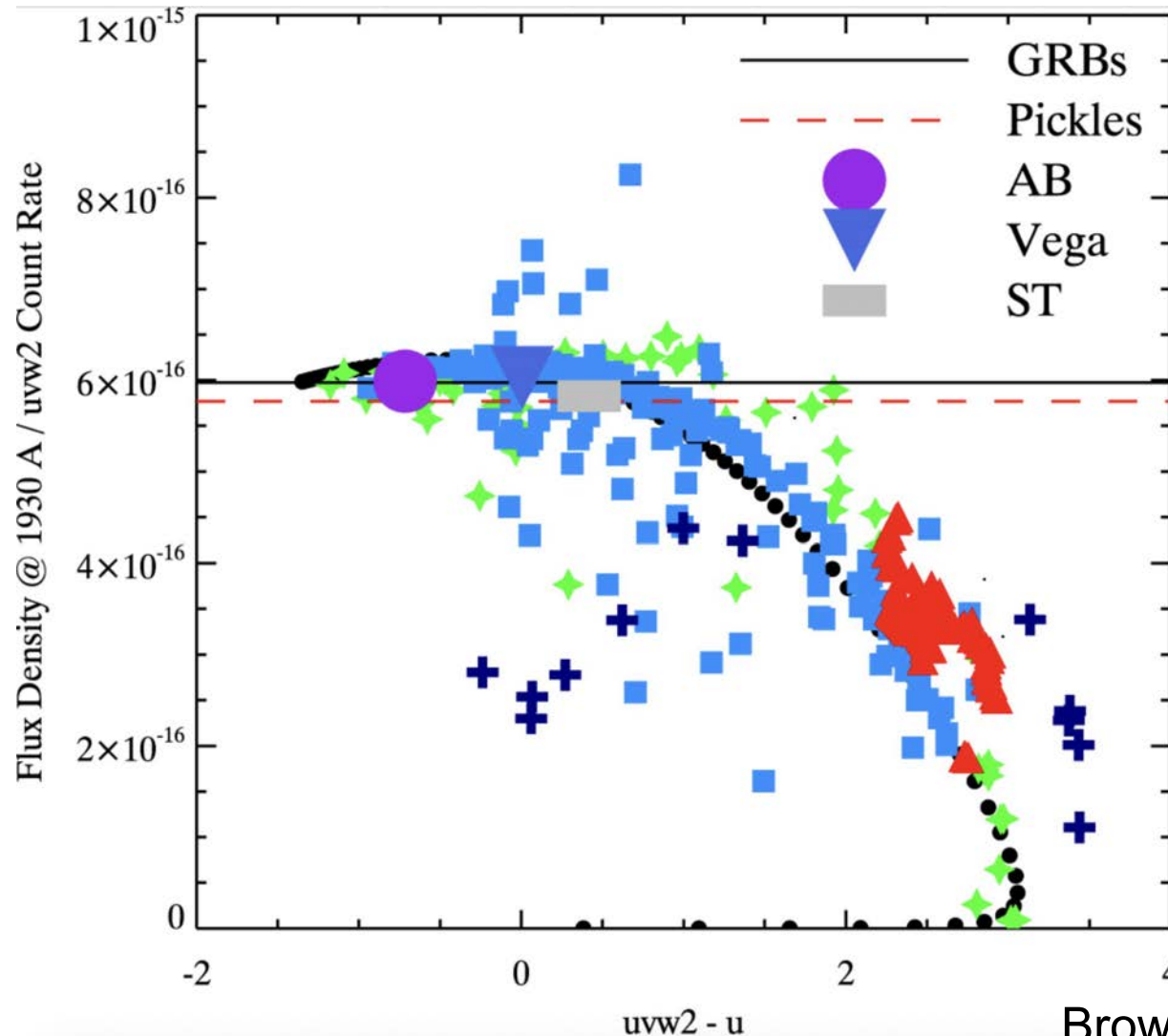
Also

Extinction
Coefficients,

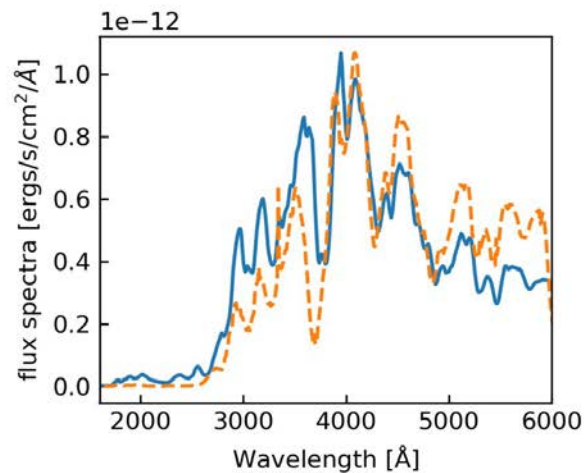
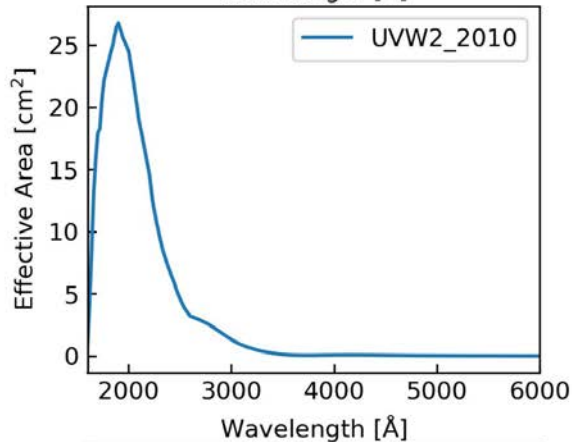
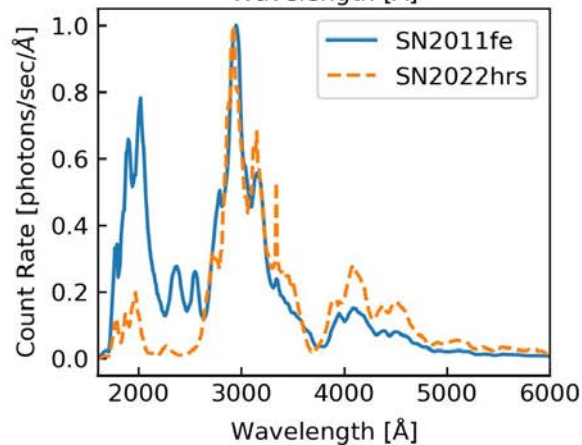
Bolometric flux
Contribution,

K corrections

Require
UV spectra!



Brown et al. 2016, AJ, 152, 102



Lessons learned:
Need better out of band rejection

Type Ia supernovae have 100x more flux at 4000 Å than 2200 Angstroms

Devarakonda et al., in prep

Early-Time UV observations are the new frontier

Most
constraining
for physics of
explosions
and
progenitor
scenarios

Hosseinzadeh
et al. 2022,
ApJL, 933, 45

