Late-time Follow-up of

ASAS-SN

Tidal Disruption Events

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Carnegie Observatories
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ASAS-SN TDEs

• ASASSN-14ae (Holoien+ 2014, Brown+ 2016)
  – January, 2014
  – 200 Mpc, $m_{uvw2} \sim 15.1$

• ASASSN-14li (Holoien+ 2016a, Brown+ 2017)
  – November, 2014
  – 90 Mpc, $m_{uvw2} \sim 14.2$

• ASASSN-15oi (Holoien+ 2016b)
  – August, 2015
  – 200 Mpc, $m_{uvw2} \sim 14.8$
ASASSN-14li

Brown+ 2017
ASASSN-14li

Brown+ 2017
ASASSN15oi

Brown+ 2016b
Takeaways

• ASAS-SN TDEs exhibit emission on timescales ranging from a few months to multiple years
• Luminosity decline rates vary, not \( t^{-5/3} \)
• 14li X-ray and UV/optical emission come from different regions
• Most spectroscopic lines vanish in the first couple hundred days
Thank You

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