# Host galaxy properties for SNIa

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In this short document I summarise the information about the host galaxies of Type Ia SNe.

1. Carnegie Supernova Project Dr2: The second data release of CSP (Stritzinger+2011) has host galaxy morphology information for most of the 50 SNe that they have released photometry for (note: most of these also have spectra and in some cases time series as well).

Light curves of these supernovae can be fit with templates (eg. using SNooPy or SifTo) in filters from u to K (a lot of IR information is also available for these objects)

2. SDSS: In Lampeitl et al., there is host mass and specific star formation rate (sSFR) information available.

This sample of SNe was used in the Guy+2007 analysis. An explanation of the columns is given in the file

3: Other low-z samples: Apart from the CSP, there are other efforts to compile SNe data for a low-z sample, eg. PTF, SNfactory CfA.

From what I have looked at currently, the CFA sample doesnt seem to have any host galaxy information

In sullivan+2010, the authors use the host stellar mass as an indicator for metallicity.

The SNFactory group has provided an analysis of the SN hosts for objects in their sample in Childress+2013. (http://arxiv.org/pdf/1304.4719.pdf)

Recent literature on the Palomar transient factory (PTF) has provided analyses fo the SN hosts in Pan+2014. They link the host properties to the spectral features of the SN. PTF SNe hosts have spectroscopic information which has allowed the authors to derive metallicities. However, the PTF SN photometry is not public and in Maguire+2014, there are only stretch values (no colour or peak magnitude values in the table) A similar issue exists with the SNfactory

The berkeley supernova project has host morphologies reported in silverman+ 2012. They also have light curves and spectra for the objects in their sample.