The folder provides the spectra used for metallicity measurements of supernova environments published in our paper “Metallicity differences between Type IIP and stripped-envelope supernova environments” - Ganss R et al., 2025, MNRAS, 543, 2374.

The data are obtained by our observations with INT/IDS or are extracted from archival data of VLT/MUSE instrument (via ESO science portal) and MaNGA survey. The paper also uses PISCO spectra, which are available on https://zenodo.org/records/1172732. See paper, sections 2 and 3, for more details.

The spectra are given "as they are", i.e. the MUSE data are normalized to 10E-20 and the MaNGA data to 10E-17; the INT/IDS spectra are not normalized. The unit of the flux is erg/s/cm^2/Å, wavelength unit is Å. In total, the repository consists of 239 spectra of 218 supernova environments.

The file name convention is '<target_name>_<spectrum_source>.fit' where <target_name> is supernova name (in lower case) and <spectrum_source> is 'muse' for VLT/MUSE archival data, 'manga' for MaNGA archival data and 'int' for INT/IDS observation. Multiple observations with INT/IDS are marked by an additional 'A','B',... in the spectrum source name.

The file 'targets_data.csv' (TAB-separated) contains emission line fluxes obtained by PPXF fitting of the environment spectra. See file header for more details. The environment metallicities in the file are derived from the given fluxes directly. They may differ slightly from the paper values for targets with multiple observations because the paper presents average values and uses additional data (PISCO, CALIFA).

Any questions to the data can be emailed to JPledger@uclan.ac.uk.

R. Ganss, 22-Oct-2025