

# Curriculum Vitae

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## **Education**

High school, Natural science programme, 1986.  
Master of Science in Physics at Stockholm University, 1995.  
Master level studies in Astronomy at Stockholm University, 2008-2009.  
PhD in Astronomy at Stockholm University, planned dissertation date 2015-03-15.

## **Jobs**

Software engineer and configuration manager at Teligent AB, 1995-2008.

## **Experience within the field**

### Observations

I have been observing on-site with the Nordic Optical Telescope (NOT) at La Palma and a number of times with the NTT at La Silla on behalf of the NTT Large and PESSTO programs. In addition I have been running the Stockholm remote target-of-opportunity (TOO) program at the NOT between 2009 and 2012, for which I also developed a series of observing scripts to automate the procedure.

### Data reductions

I have reduced several large datasets, i.e. those for SN 2011dh (Paper II and IV), 2009md (Fraser et al. 2011) and 2009kr (not published yet), as well as a large part of the 2010jl dataset (Fransson et al. 2014). These datasets span both the optical and the near-infrared (NIR), include both imaging and spectroscopy and also ultra-violet (UV) and mid-infrared (MIR) imaging obtained with SWIFT/UVOT and Spitzer. As part of this work I have also developed an IRAF based reduction pipeline. In Paper II and IV much effort was spent to make sure the photometry, obtained with a large number of different instruments, was well calibrated to the standard systems. In particular this required S-corrections (Stritzinger et al. 2002) to be determined for each instrument using the observed spectral sequence and the filter response functions (see Paper II).

### Instrumentation

Although I was not deeply involved, I have been a member of the James Webb Mid Infra-Red Instrument (MIRI) test-team, and have participated in the tests of this instrument at the Rutherford Appleton Laboratory (RAL).

### Computer programming

As mentioned above I am a computer programmer by profession, which have been a great benefit during my PhD. I usually work in C or C++, but I am is also well acquainted with Python and Unix/Linux shell programming.

## Modelling

During my PhD I have developed a Monte-Carlo radiative transfer code (Paper II), aimed for spectral modelling and based on the method outlined in Mazzali & Lucy (1993), and the hydrodynamical code HYDE (Paper IV and VI), aimed for bolometric lightcurve modelling and based on the method outlined in Falk & Arnett (1977). Although not an expert, I am also acquainted with stellar evolutionary modelling, and in particular with the public stellar evolutionary code MESA and how to use it to construct SN progenitor models.