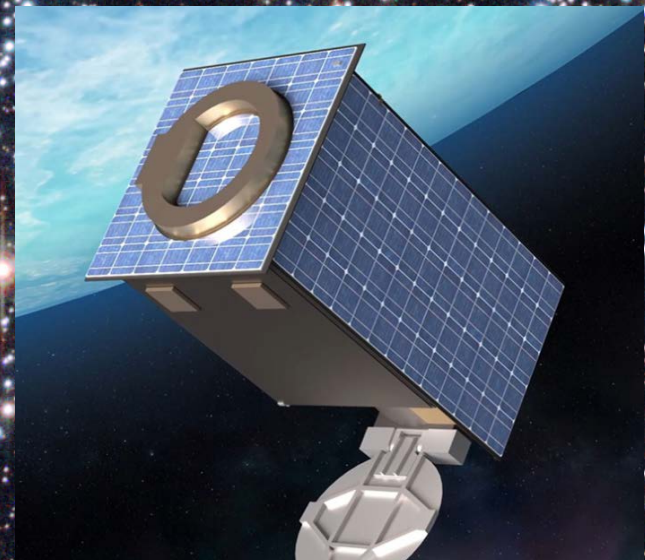# Absolute photometry of open clusters
(standard fields for the QUVIK mission)

RNDr. Jan Janík, Ph.D.

bachelor / master thesis

- a large number of hot stars (UV sources)

- open star clusters can be used as a standard field

Absolute photometry of open clusters

- observations in *UBVRI* filters
- observations at the observatory Mt. Suhora

Mt. Suhora Observatory

Absolute photometry of open clusters

- observation in passbands *UBVRI*
- observations at the observatory Mt. Suhora
- measurements of standard stars together with selected OCs

Absolute photometry of open clusters

Cluster_name	RA_2000	Dec_2000	l	b	Dist	Mod	E(B-V)	Age
NGC 0188	00 47 28	+85 15 18	122.843	22.384	2047	11.81	0.082	9.632
NGC 0752	01 57 41	+37 47 06	137.125	-23.254	457	8.40	0.034	9.050
Stock 2	02 15 00	+59 16 00	133.334	-1.694	303	8.59	0.38	8.23
IC 1805	02 32 42	+61 27 00	134.726	0.919	1886	13.93	0.822	6.822
Melotte 20	03 22 00	+48 37 00	146.568	-5.862	185	6.61	0.090	7.854
Melotte 22	03 47 00	+24 07 00	166.571	-23.521	150	5.97	0.030	8.131
Melotte 25	04 26 54	+15 52 00	180.064	-22.343	45	3.30	0.010	8.896
NGC 2099	05 52 18	+32 33 12	177.635	3.091	1383	11.64	0.302	8.540
NGC 2168	06 09 00	+24 21 00	186.587	2.219	816	10.37	0.262	7.979
NGC 2244	06 31 55	+04 56 30	206.306	-2.072	1445	12.23	0.463	6.896
NGC 2264	06 40 58	+09 53 42	202.936	2.196	667	9.28	0.051	6.954
NGC 2281	06 48 17	+41 04 42	174.901	16.881	558	8.93	0.063	8.554
NGC 2632	08 40 24	+19 40 00	205.920	32.484	187	6.39	0.009	8.863
NGC 2682	08 51 18	+11 48 00	215.696	31.896	908	9.97	0.059	9.409
Melotte 111	12 25 06	+26 06 00	221.353	84.025	96	4.95	0.013	8.652
NGC 6633	18 27 15	+06 30 30	36.011	8.328	376	8.44	0.182	8.629
IC 4756	18 39 00	+05 27 00	36.381	5.242	484	9.02	0.192	8.699
NGC 6811	19 37 17	+46 23 18	79.210	12.015	1215	10.92	0.160	8.799
NGC 6913	20 23 57	+38 30 30	76.905	0.594	1148	12.61	0.744	7.111
NGC 6940	20 34 26	+28 17 00	69.860	-7.147	770	10.10	0.214	8.858
Trumpler 37	21 39 06	+57 30 00	99.312	3.734	835	11.07	0.470	7.054

Absolute photometry of open clusters

- observation in passbands *UBVRI*
- observations at the observatory Mt. Suhora
- measurements of standard stars together with selected OCs
- determination of atmospheric extinction in individual nights
- construction of color diagrams
- refinement of open cluster's parameters
- measurement of interstellar extinction

Mt. Suhora Observatory