

NOFS(10) seqplot aka Henden data is 99.9% the gold standard for comparison stars used in any sequence; unfortunately the fov's included are limited across the sky and the majority of the fov's are in the Northern Hemisphere (but not all).

Henden data was used to demonstrate the efficacy (or potential lack thereof) of a number of surveys (UBVRI) that we currently use. From the Team web page: See *A photometry Comparison of 41 Henden M67 Comp Star Differences With Five Other Surveys & Efficacy of GaiaDR2 as a VRI Source*.

The average difference From Henden Data with comparative GaiaDR2 (absolute values) was:

Gaia DR2

V = 0.017

R = 0.021

I = 0.030

While a different fov, a previous study showed the following APASS differences (DR9) from Henden data:

V = .027

R = .113

I = .197

The reason for creation of this topic is that some of the Henden Sequences created previously lack Rc & Ic data.

When faced with a request for Rc & Ic data for such sequences we have several options.

- 1) Use Current APASS data
- 2) Use Another Seqplot Survey, if data available
- 3) Or a Manual Insertion of GaiaDR2 converted Rc & Ic Data

Today, I was faced with an Rc & Ic request for a Henden B & V sequence for a star which had some 43,000 previous observations.

The Average V difference for all the existing Henden comps & APASS for this fov was .166 (as an FYI, the Average V difference between Henden and GaiaDR2 conversions was .025)

No choice herein but to use the 3rd option so as not to potentially alter the B & V data curves by replacing the Henden B & V data. Plus the GaiaDR2 Rc & Ic data was well matched to the Henden data.

Tim Crawford

06/01/2021

Below are VSX images of the manual insertions of the Rc & Ic data

Measurement								New
Delete?	Mag.	Error	Band	Type	Source	Nights	Trans.	
1	<input type="checkbox"/>	13.297	0.000	V	CCD	CCD Henden		Unknown
2	<input type="checkbox"/>	13.796	0.019	B	CCD	CCD Henden		Unknown
3	<input type="checkbox"/>	12.285	0.021	J	CCD	2MASS		Unknown
4	<input type="checkbox"/>	12.079	0.023	H	CCD	2MASS		Unknown
5	<input type="checkbox"/>	12.046	0.017	K	CCD	2MASS		Unknown
6	<input type="checkbox"/>			--	CCD	--		Unknown

Measurement								New
Delete?	Mag.	Error	Band	Type	Source	Nights	Trans.	
1	<input type="checkbox"/>	13.297	0.000	V	CCD	CCD Henden		Unknown
2	<input type="checkbox"/>	13.796	0.019	B	CCD	CCD Henden		Unknown
3	<input type="checkbox"/>	12.285	0.021	J	CCD	2MASS		Unknown
4	<input type="checkbox"/>	12.079	0.023	H	CCD	2MASS		Unknown
5	<input type="checkbox"/>	12.046	0.017	K	CCD	2MASS		Unknown
6	<input type="checkbox"/>	12.980	0.003	Rc	CCD	GAIA DR2		Unknown
7	<input type="checkbox"/>			--	CCD	--		Unknown

Measurement								New
Delete?	Mag.	Error	Band	Type	Source	Nights	Trans.	
1	<input type="checkbox"/>	13.297	0.000	V	CCD	CCD Henden		Unknown
2	<input type="checkbox"/>	13.796	0.019	B	CCD	CCD Henden		Unknown
3	<input type="checkbox"/>	12.285	0.021	J	CCD	2MASS		Unknown
4	<input type="checkbox"/>	12.079	0.023	H	CCD	2MASS		Unknown
5	<input type="checkbox"/>	12.046	0.017	K	CCD	2MASS		Unknown
6	<input type="checkbox"/>	12.980	0.003	Rc	CCD	GAIA DR2		Unknown
7	<input type="checkbox"/>	12.694	0.003	Ic	CCD	GAIA DR2		Unknown

Submit Changes

AUID: 000-BBR-202