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Extra knot material from Will for the Alma paper

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ABSTRACT
New material written by Will in 2016 December, describing methodology, results, and interpretation from new knot measurements and fitting.

Key words: knots – knots – and more knots!

1 KNOT CLASSIFICATION

2 KNOT ANALYSIS

REFERENCES

Weilbacher P. M., et al., 2015, A&A, 582, A114

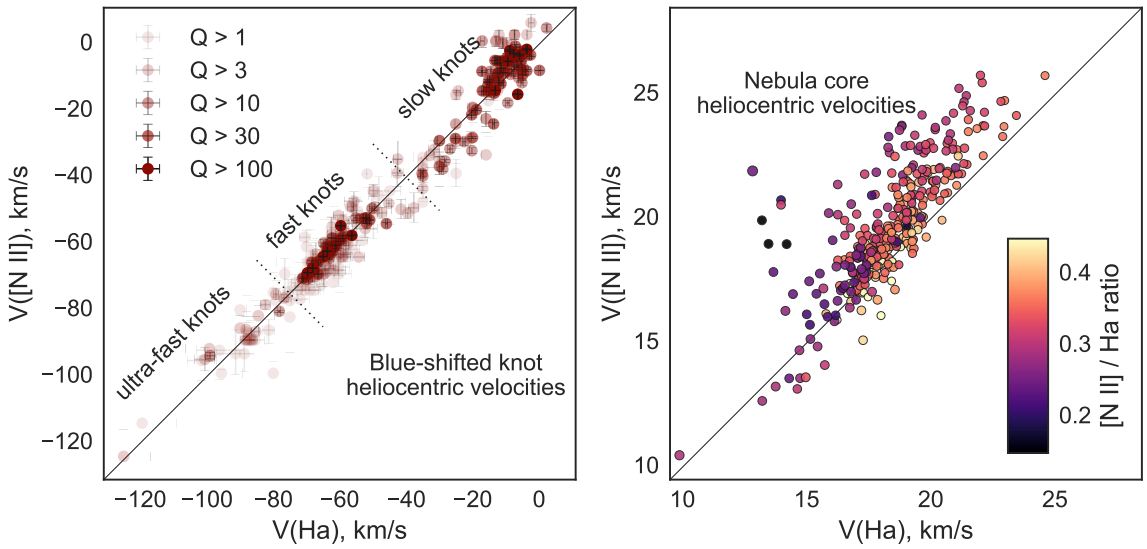

Figure 1. Velocity measurements for the blue-shifted knots (left panel) and nebular core (right panel).

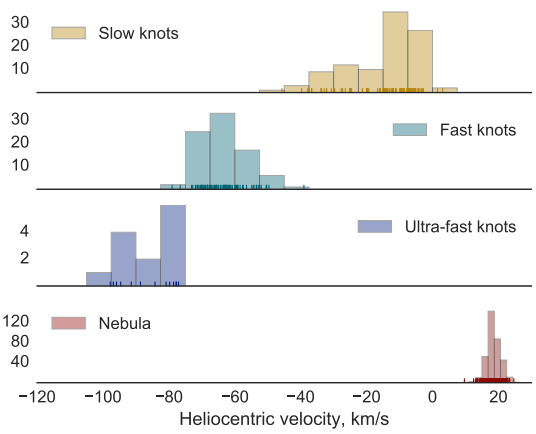

Figure 2. Division of knots into three velocity classes.

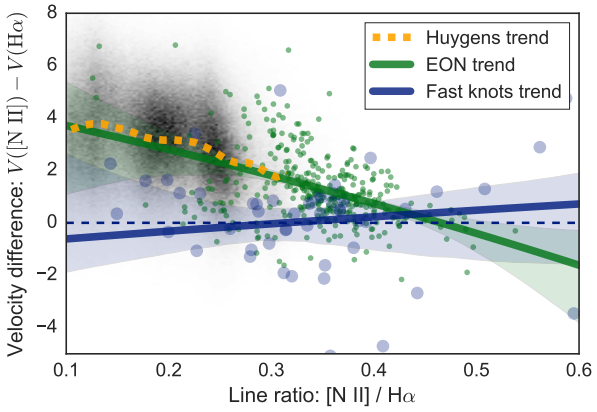

Figure 3. Correlation between [N II]–Hα velocity difference, ΔV, versus line ratio, $R_{[\mathrm{N\,II}]}$, for different datasets. The *grayscale cloud* shows the inner Huygens region of the nebula, obtained from $N \approx 2.5 \times 10^6$ pixels of integral field spectroscopy data from the VLT-MUSE instrument (Weilbacher et al. 2015), where the *orange dashed line* indicates the trend, obtained by averaging the ΔV values within $R_{[\mathrm{N\,II}]}$ bins of width 0.01. *Blue points* show the results for the best-measured knots in the "fast" velocity class (restricted to [N II] line width $< 30\,\mathrm{km\,s^{-1}}$, $N = 68$ knots), while the *blue line* indicates the best-fit quadratic trend, with 95% confidence interval shown by the *pale blue band*. *Green points* show results for the low-velocity line core of the western Extended Orion Nebula (EON) from sample positions corresponding to all of our knot measurements ($N = 351$ positions), with quadratic trend and 95% confidence interval shown by *green line* and *pale green band*, respectively. For both datasets from the current study, we have added $1\,\mathrm{km\,s^{-1}}$ to all the [N II] in order to force an average $\Delta V \approx 0$ for the fast knots. See text for discussion.