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# Wind speed vs whisker and FWHM

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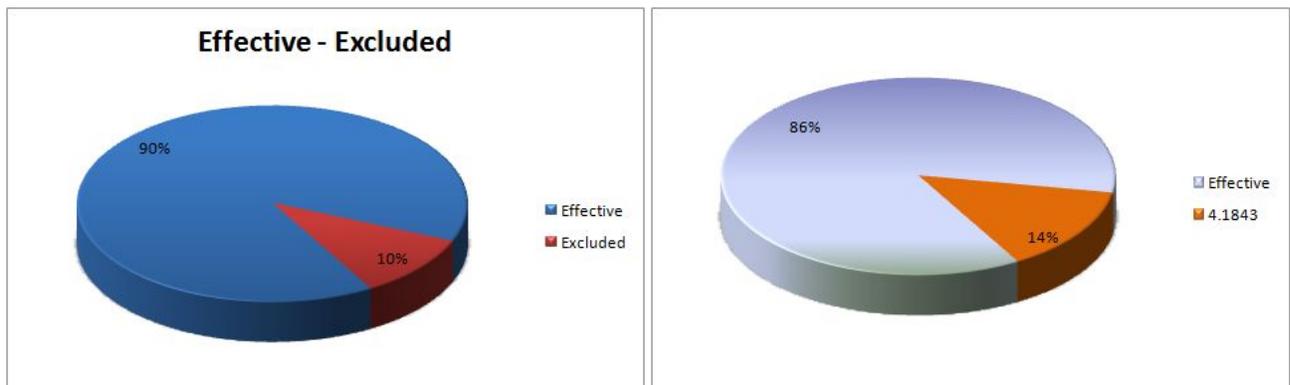
JOHN KATSAROS  
UNIVERSITY OF SUSSEX  
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Punchlist: Correlate whisker with wind records. *Prerequisite: updated IQ data table and fix wind direction sensor.*

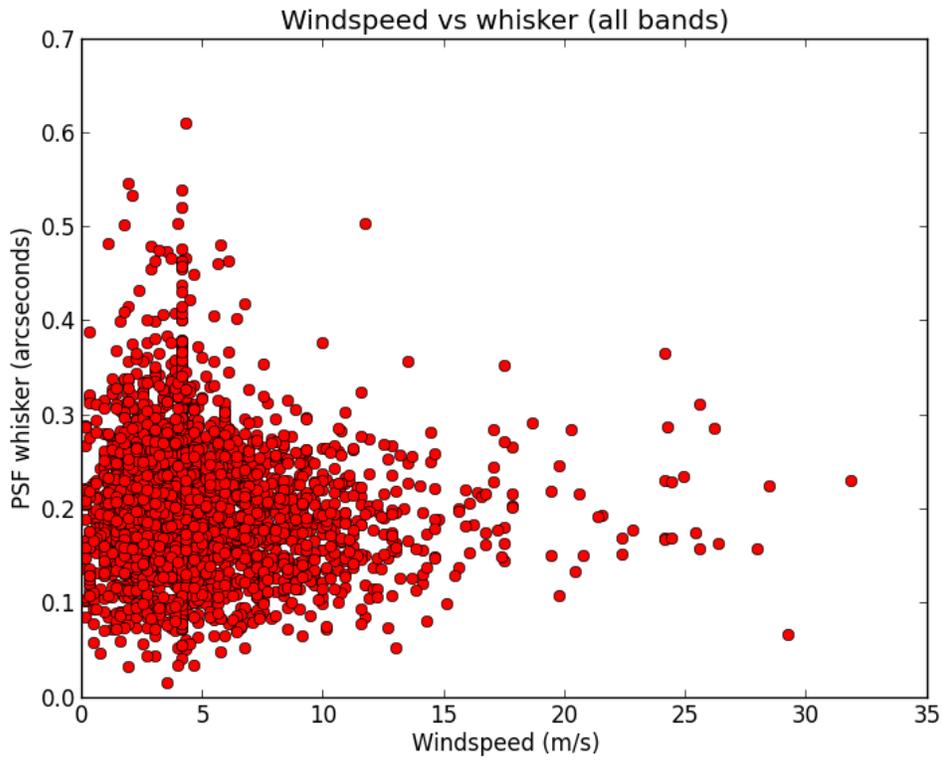
## 1. FILTERING THE VALUES

- Several exposures had the wind speed on “0” m/s; all those and the corresponding whisker and seeing measurements are excluded.
- A large number of whisker measurements also had a value of -99999, which is the default value for missing or unavailable information. Also excluded. (see chart below)
- There was a large number of consecutive exposures (see the chart below) with an exact value of wind speed 4.1843 m/s . Although no particular filtering was used on these, it's wise to notice the overdensity of measurements in that area.
- The wind direction values did not vary with time so much, so there wouldn't be much more information from plotting.

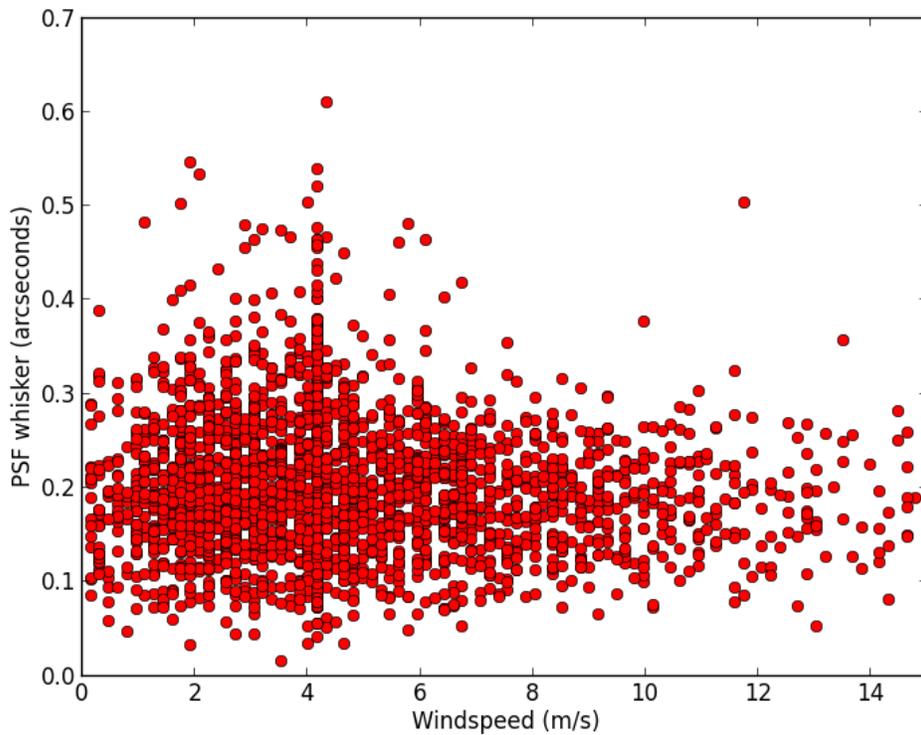
**From 3153 measurements listed, after the filtering, the effective ones were 2828.**



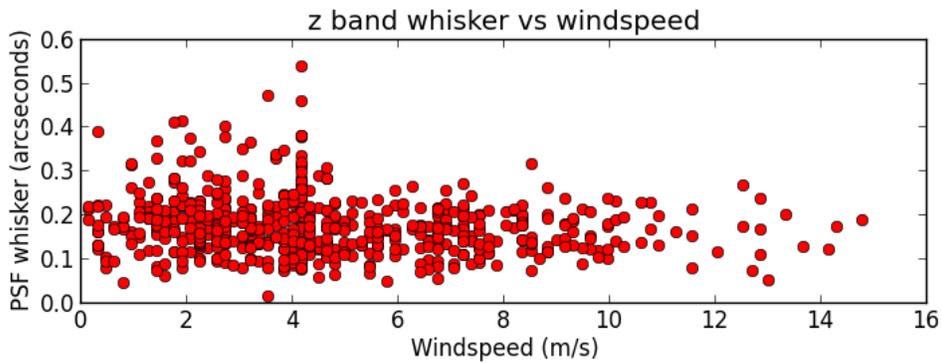
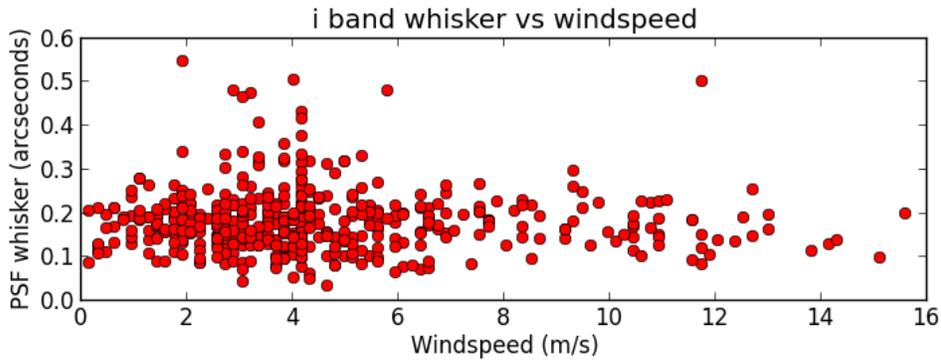
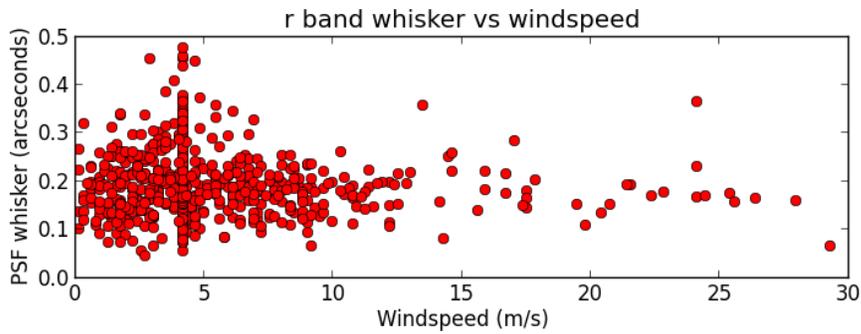
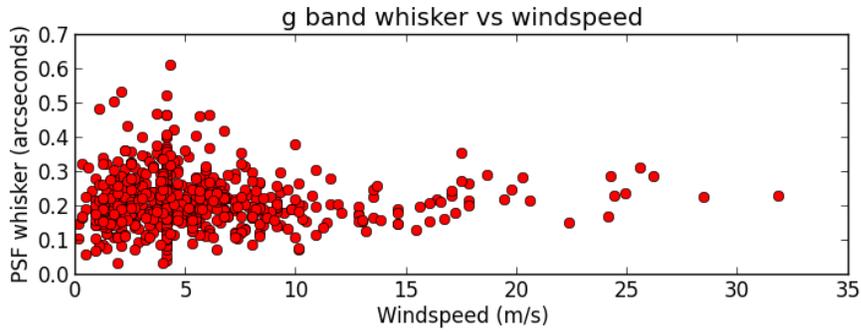
The first figure, whisker measurements from all bands versus the wind speed is presented below.

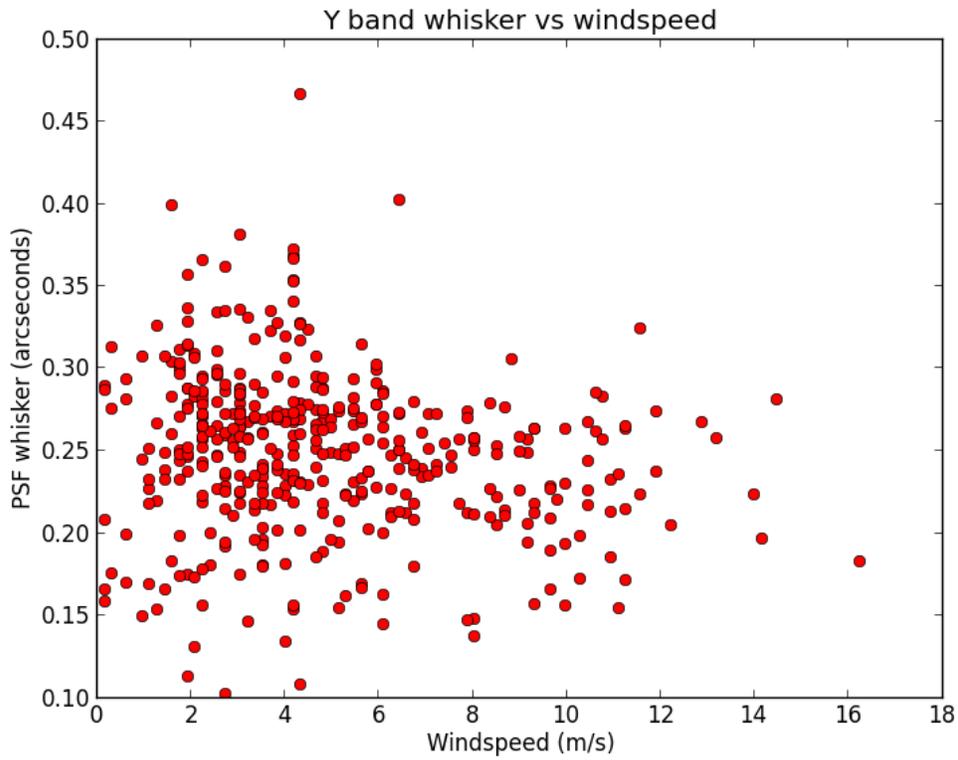


From the figure above, there doesn't seem to be any dependence of the PSF whiskers on the windspeed. A close-up for windspeed up to 15 m/s, where the main volume of measurements is located.



There was a large number of measurements with various whisker values, but static windspeed (at about 4.1 m/s), which is visible in the figure. Other than that, the close up confirms that there is no direct dependence overall. Looking at each band specifically:

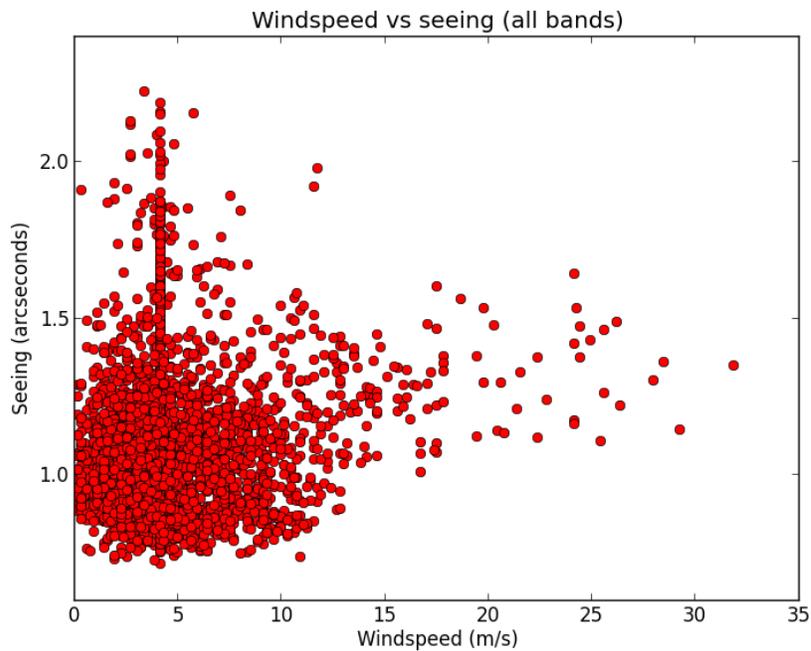


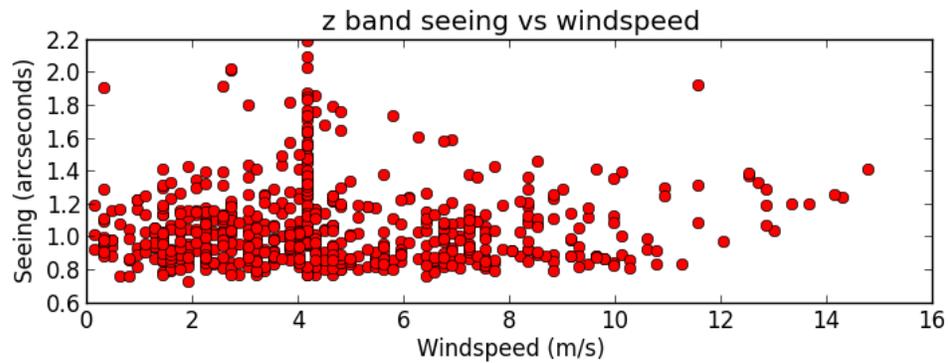
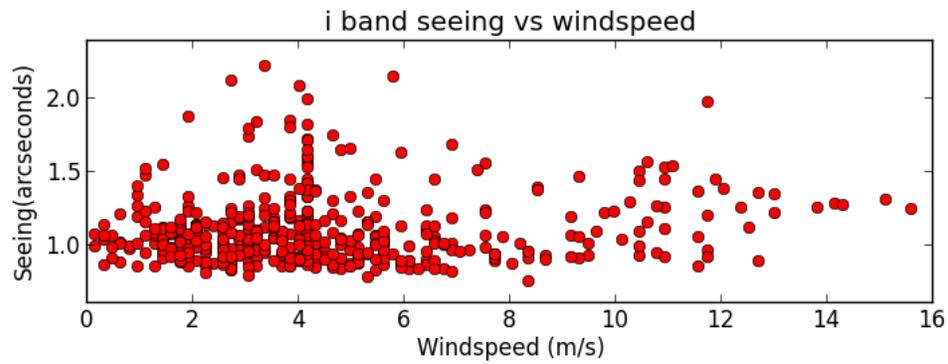
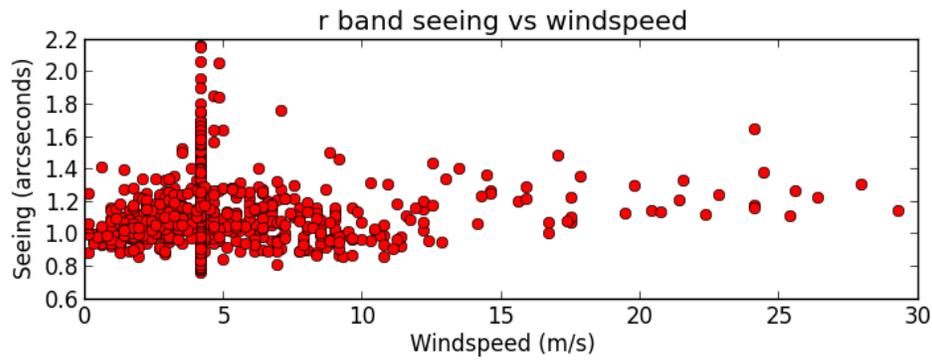
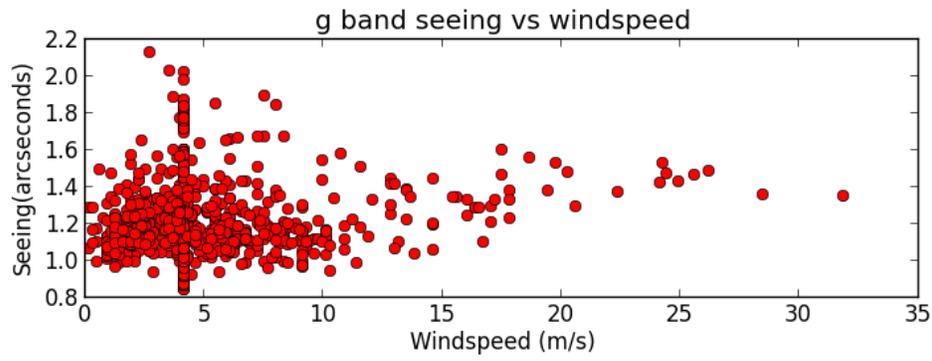


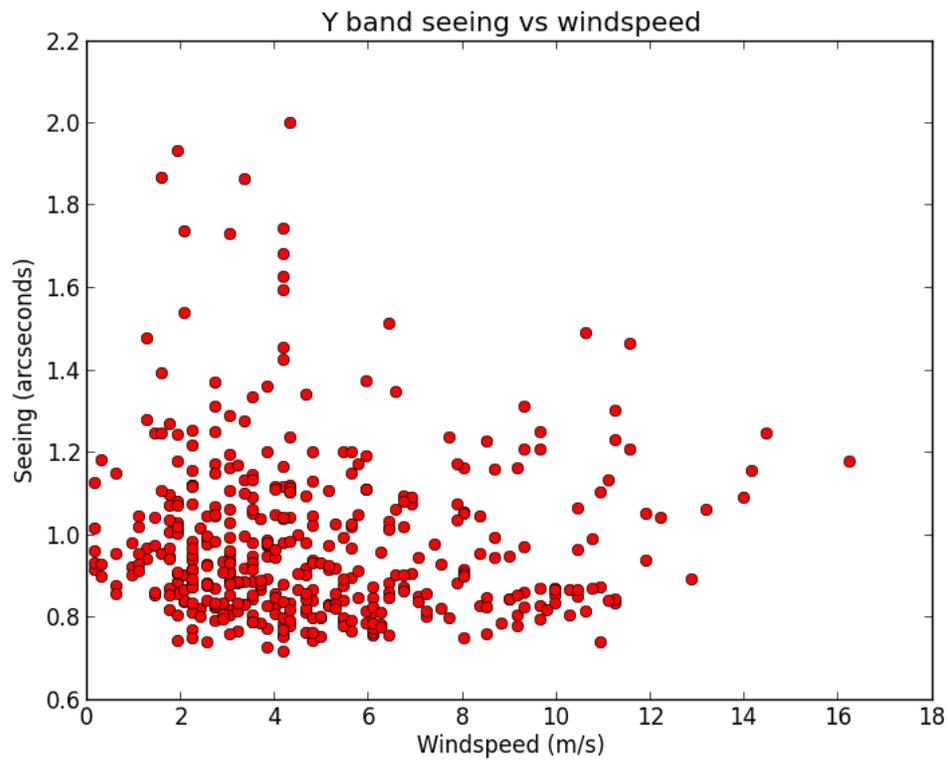
Overall, no direct dependence observed.

## 2. WIND SPEED VS FWHM

The same filter conditions applied; the criteria for an FWHM value to be valid, was the whisker value in that exposure not to be invalid (-99999).







So no direct dependence again.