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Interactive comment on "Empirical high-resolution wind field and gust model in mountainous and hilly terrain based on the dense WegenerNet station networks" *by* C. Schlager et al.

Anonymous Referee #1

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GENERAL COMMENTS The authors describe the results of a near-real time modeling tool developed for the generation of gridded wind field over complex terrain in Austria. The tool is based on the measurements of a network of meteorological stations and on a modified version of the CALMET model. The work is based on a valid scientific approach, the paper is well structured and the results clearly described.

SPECIFIC COMMENTS Page 1, lines 11-13. The authors should note that strong winds tend to have an almost constant direction, while weak winds are often characterized by variable directions. Therefore strong winds are relatively more easy to predict. Page 6, Lines 10-11: The sentence is not clear. Please

reformulate. Page 6, equation 3: Note that there are more compact equations to get the wind direction starting from the wind components. See for example: https://www.researchgate.net/profile/Stuart_Grange2/publication/262766424_Technical_note note-Averaging-wind-speeds-and-directions.pdf Page 8, line 13: where φ_g is the direction of the peak gust speed and φ_m the 30-min vector-mean wind direction. Figures 5 and 6: Text within figures is very small.

TECHNICAL CORRECTIONS Page 1 (Abstract), line 6: 100 x 100 m2 Page 1 (Abstract), line 7: The main purpose (not "A main purpose..."). Page 2, line 20: ... characterized by a very complex terrain. Page 3, line 33: Sometimes a dot is used to separate thousands, other times not. Please use the same rule in the whole paper. Page 5, line 28: Fig. 1b Page 9, line 20: ... occurred at the same time ... Page 13, line 13: The main purpose (not "A main purpose..."). Page 14, line 7: ... valuable tool ...