Supplement of

Brief communication: On the definition of the low-level jet

Christoffer Hallgren et al.

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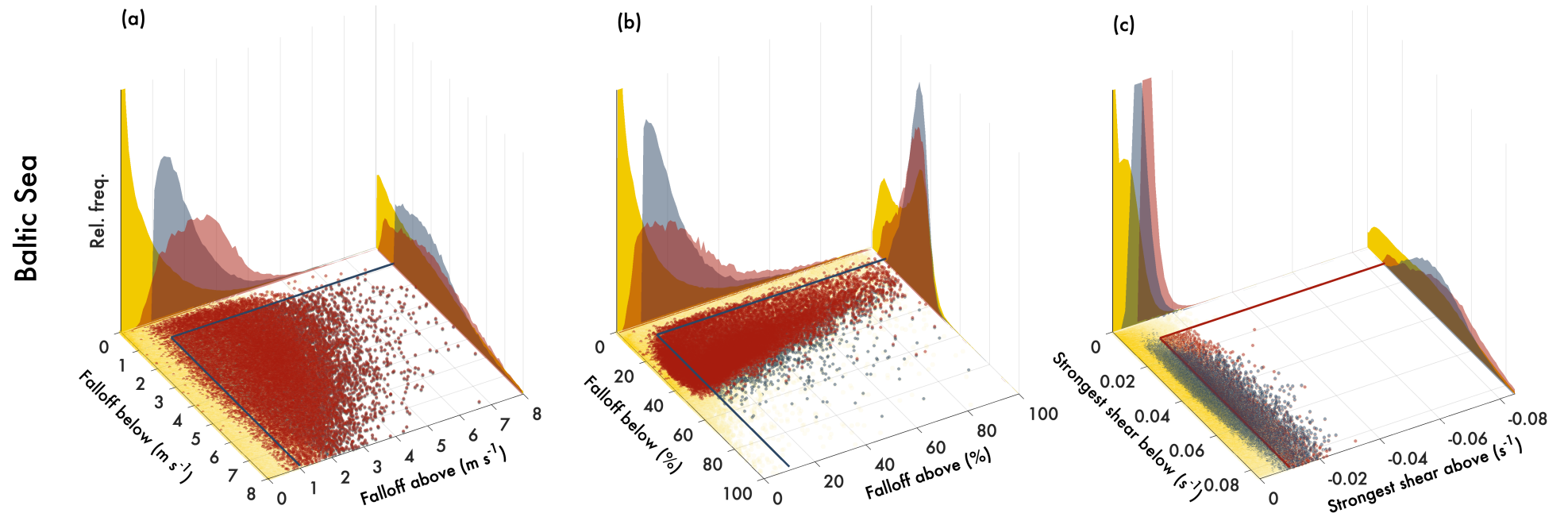
Figure S1: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for the Baltic Sea. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.
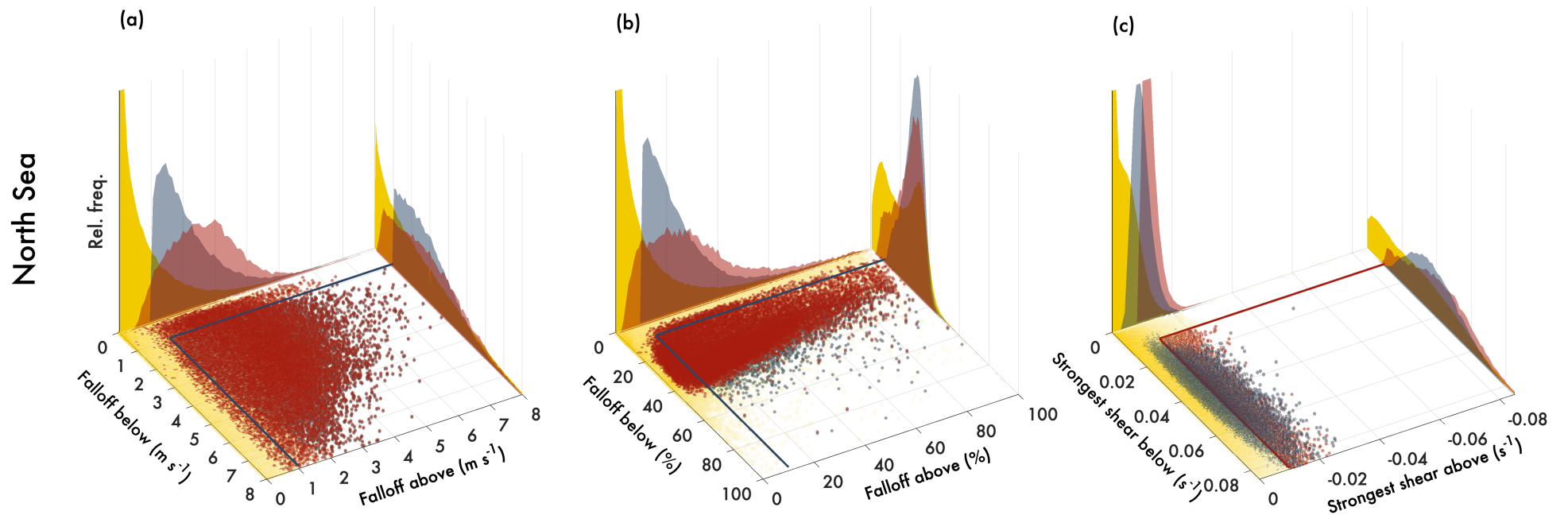
Figure S2: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for the North Sea. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.
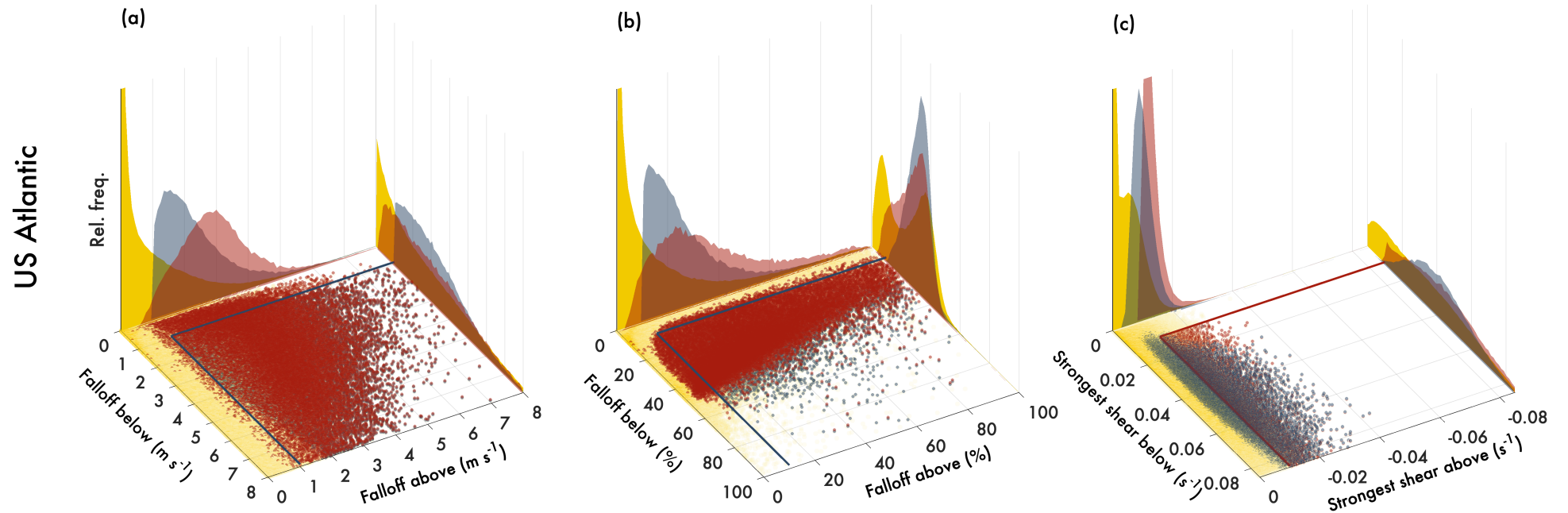
Figure S3: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for US Atlantic. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.
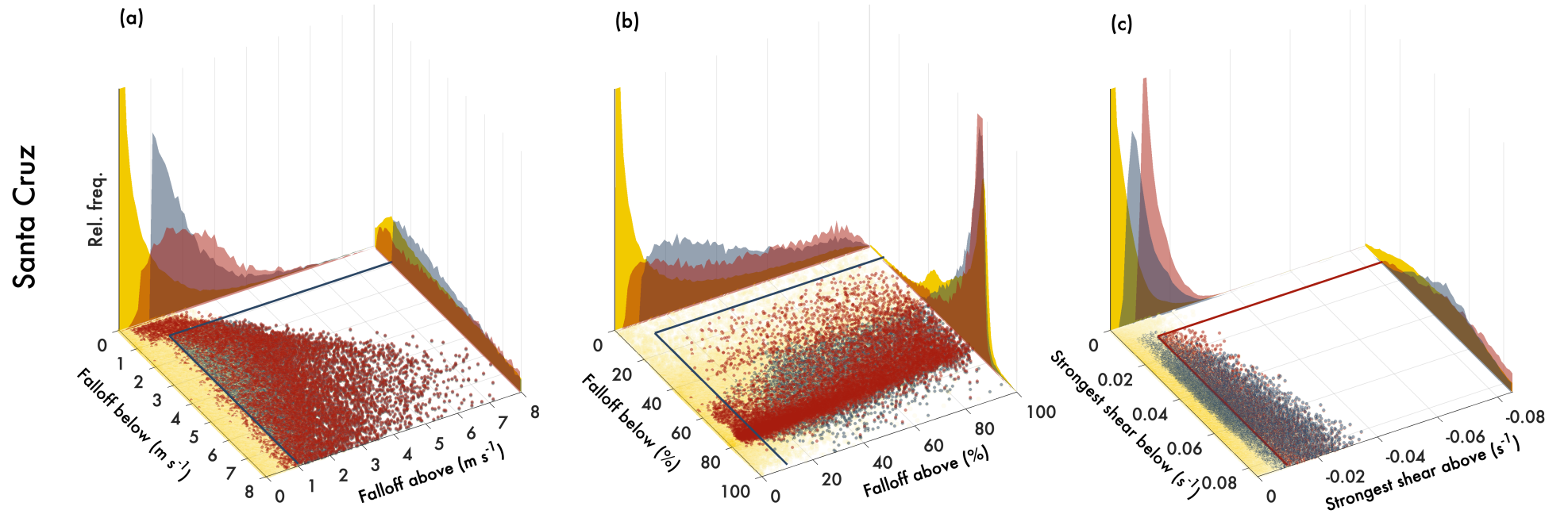
Figure S4: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for Santa Cruz. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.
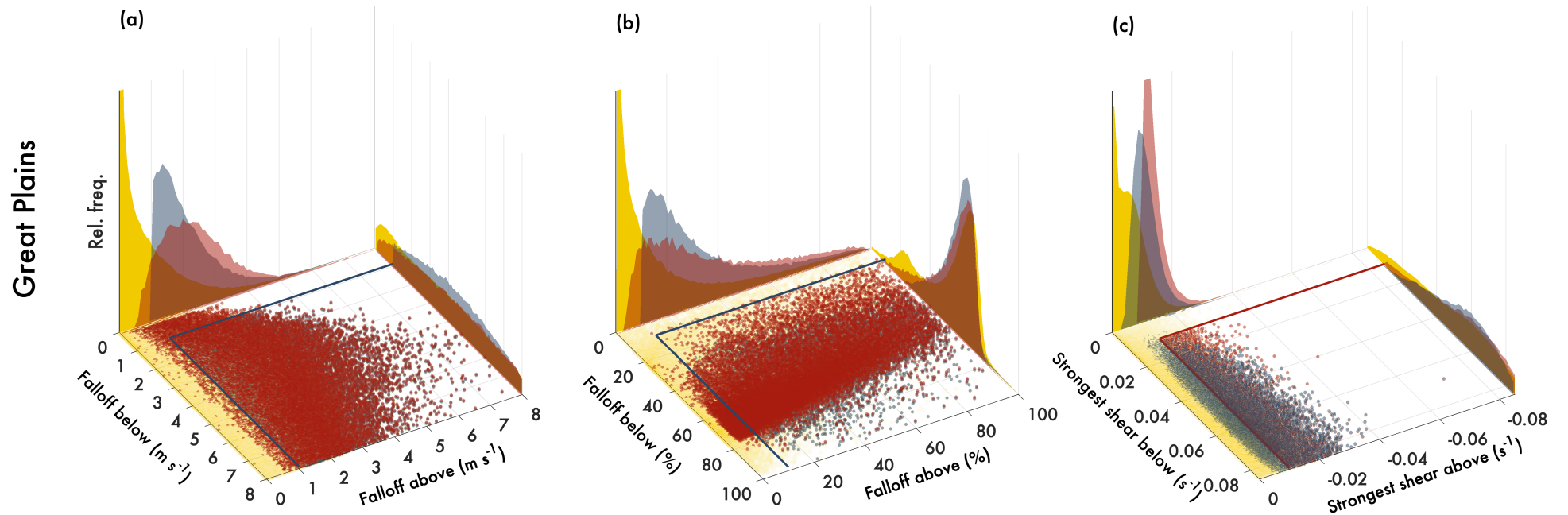
Figure S5: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for the Great Plains. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.
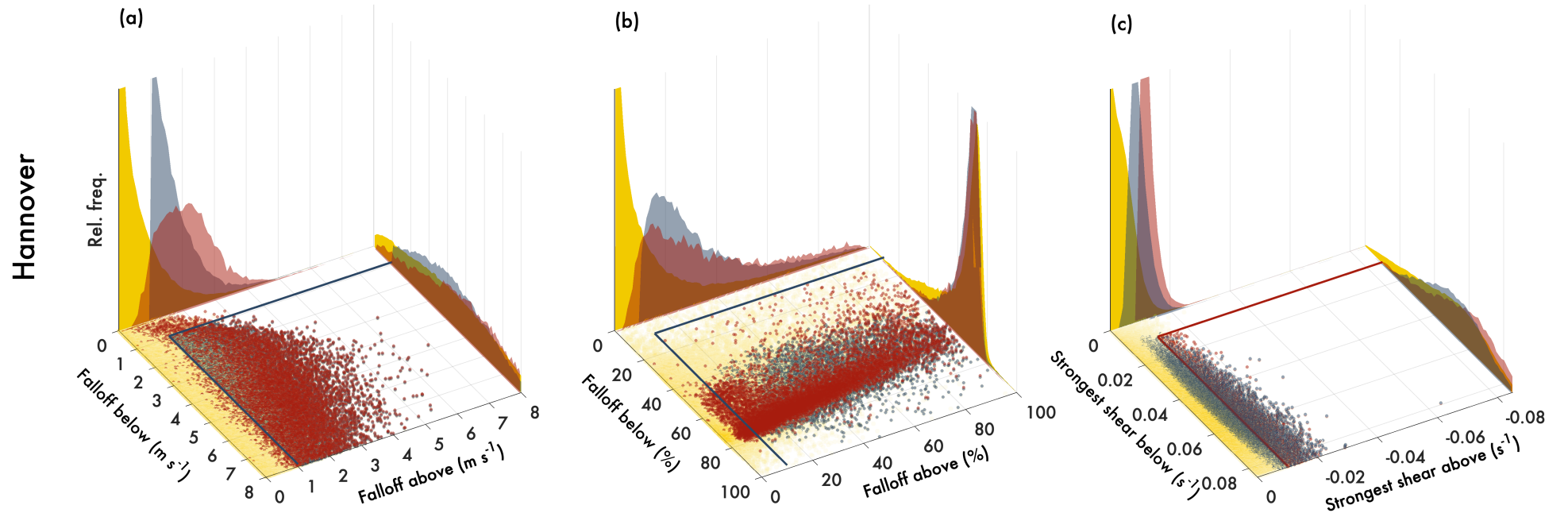
Figure S6: Distributions of all profiles with a local maximum in the wind profile (yellow) in terms of absolute (column a) and relative (column b) change of wind speed above and below the core and strongest shear above and below the core (column c) for Hannover. The combined +/- 1 m s^{-1} and 10% falloff criterion is marked with the dark blue line (in column a and column b) and the identified LLJs as pale blue dots. Similarly, the +/- 0.01 s^{-1} shear criterion is marked with the red line (in column c) and the identified LLJs as red dots. Distributions of the relative frequency for all profiles with a local maximum (yellow), LLJs identified by the falloff definition (blue) and by the shear definition (red) are projected onto the vertical planes.