

**Table 3.** Percentage of data points classified in the same cluster as F1, for the different feature sets (second column, header “S”). In the third column, header “M”, the two magnetosheath clusters just downstream the bow shock, 1 and 4, are considered one. The dataset used is the validation dataset, at time  $t_0 + 210$  minutes.

Case	S	M
F1-TV	80.71	85.72
F1-NL	59.83	61.47
F2	84.69	84.71
F3	87.85	89.01
F4	82.70	83.01
F5	93.07	94.42
F6	91.02	92.36
F7	83.38	84.77
F8	91.55	91.78
F9	66.05	75.67
F10	92.49	93.90