

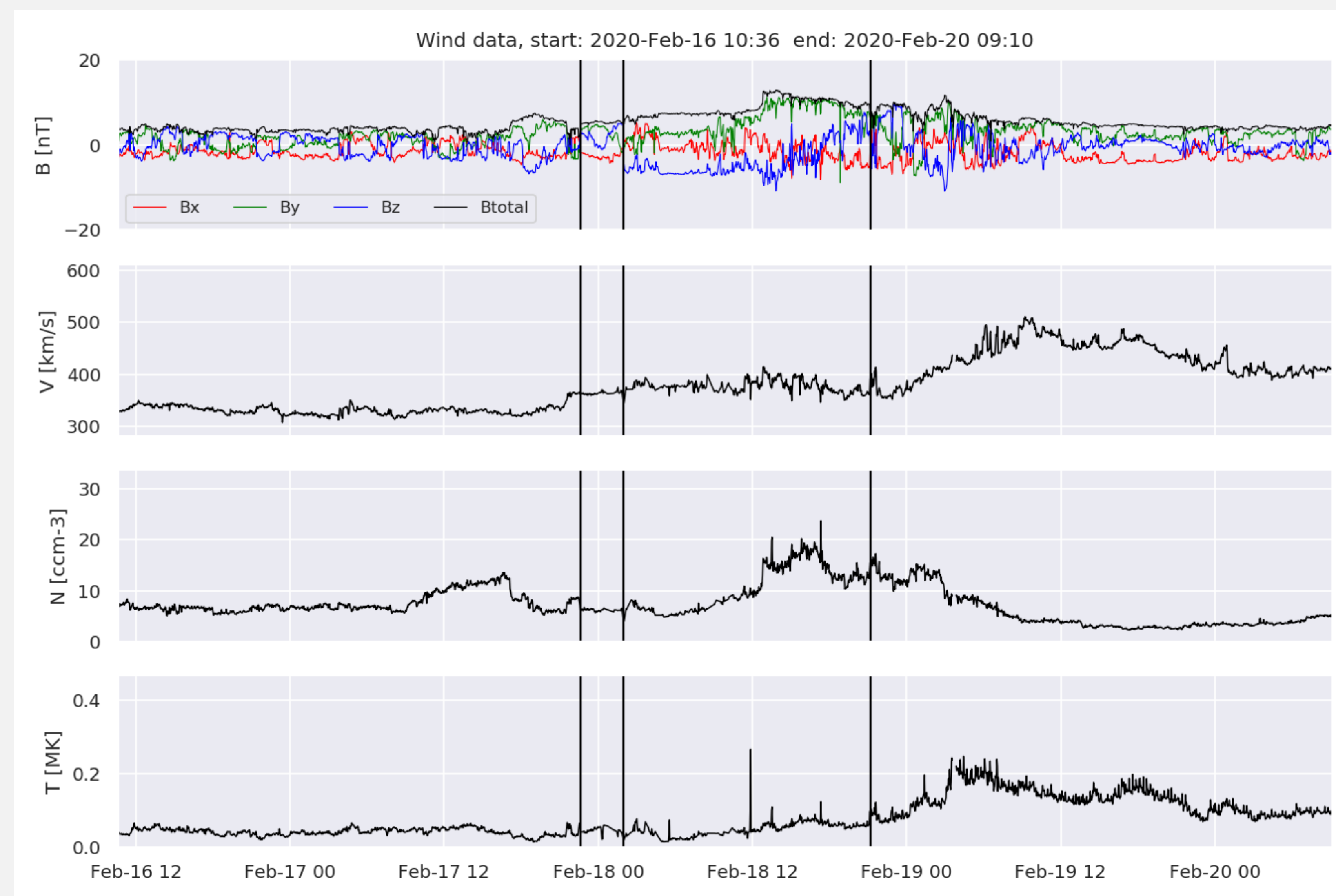
Automatic Detection and Classification of ICMEs in Solar Wind Data

¹Know Center, Graz, Austria;
²University of Graz, Graz, Austria;
³Space Research Institute, Austrian Academy of Sciences, Graz, Austria;
⁴Department of Physics, Washington University in St. Louis, MO 63130, USA;
⁵Conrad Observatory, ZAMG, Vienna, Austria



H. Rüdiger^{1,2}, A. Windisch^{1,4}, U.V. Amerstorfer³, T. Amerstorfer³, C. Möstl³, R.L. Bailey⁵

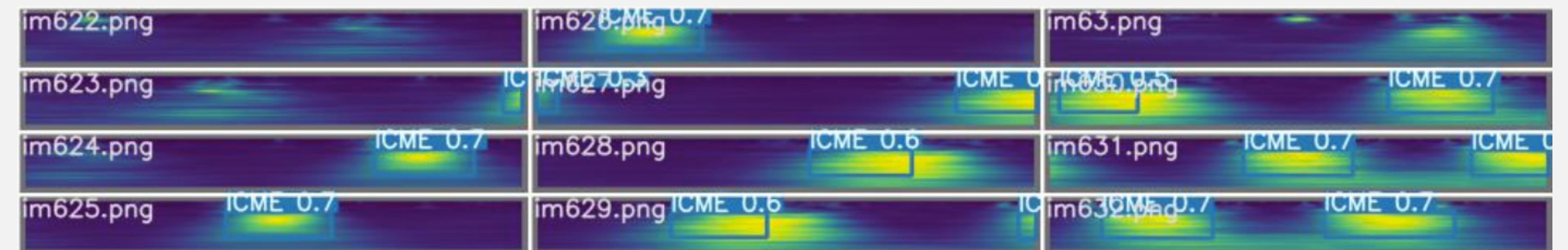
Convolutional Neural Networks for Event Detection in Time Series Data



- Reimplementation of a sliding window approach creating a 2D similarity map

- Testing on STEREO A and STEREO B data shows reduced performance compared to WIND data
- Limited capability to reliably reproduce start and end time

Inclusion of a Post Processing Step



- Using a computer vision technique to post process similarity map
- Transfer learning enhances localization performance

Next Steps

- Improvement of the post processing step
- Alignment of the datasets from different spacecraft