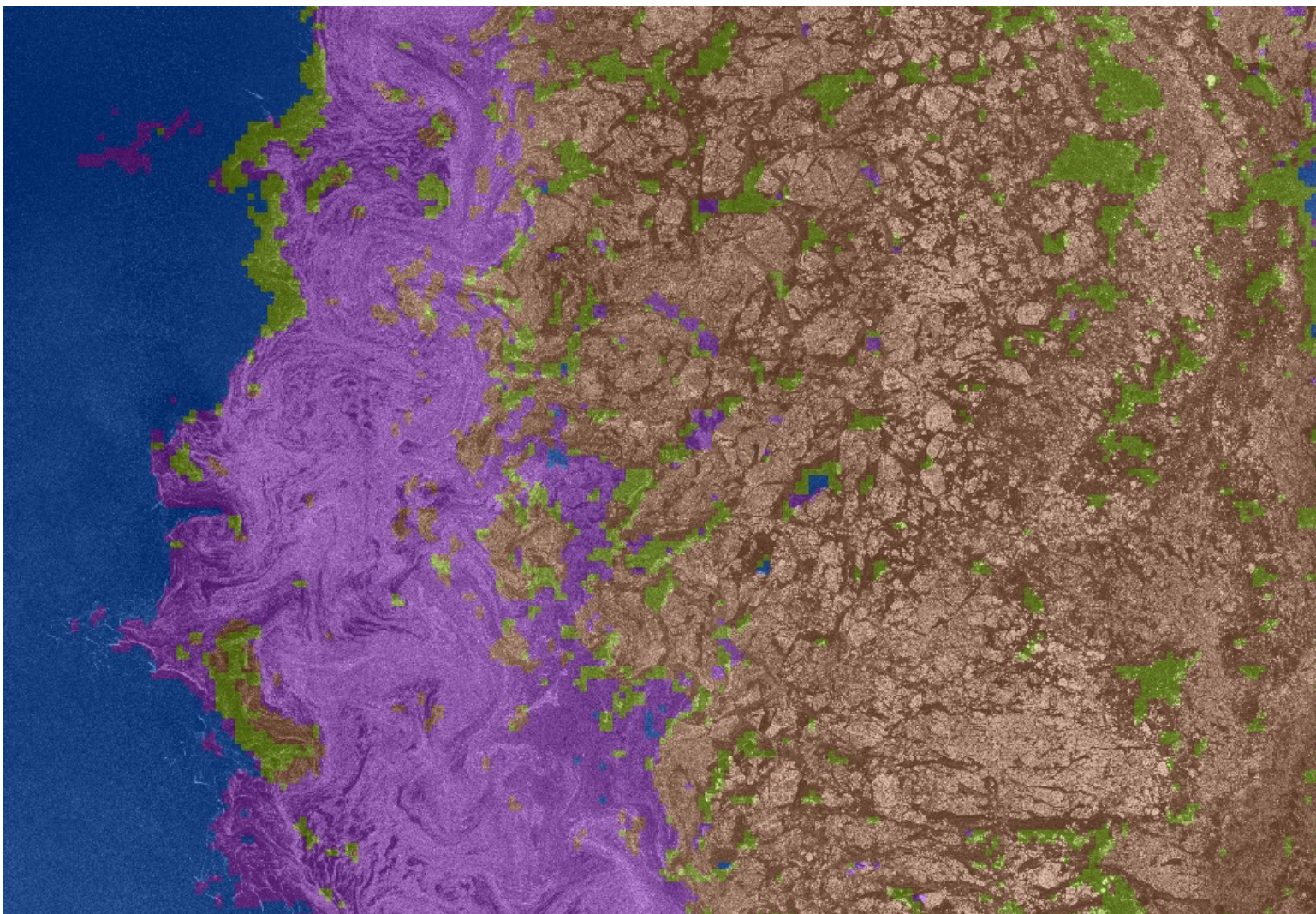


Classification of Sea Ice Types in Sentinel-1 SAR Data Using Convolutional Neural Networks

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Overlay of semitransparent CNN ice chart over Sentinel-1 SAR HV image

Open water

Young ice

First year ice

Multi-year ice

Convolutional Neural Network

Input: 50x50 SAR image in HH and HV

Output: Probability of 4 ice types:

- Ice free
- Young ice
- First year ice
- Multi-year ice

Training: 1M samples, Jan - Mar 2020

Testing: 300K samples, Jan- Apr 2020

