



**Here,
There &
Everywhere**

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Anomalies in the Radio Neutrino Observatory Greenland

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After two seasons of deployment, 7 stations built and many lessons learned, the Radio Neutrino Observatory Greenland (RNO-G) is now operational. In the coming years, the construction of another 28+ stations will bring the array to full capacity as an instrument with an eye towards the ultra-high energy neutrino (>10 PeV) regime, creating another link in the fast paced and rapidly changing landscape of multi-messenger astronomy. Until now, the data volume of our two initial seasons has remained manageable. However, as the array continues to grow, we need to develop more and more clever processes regarding how to filter our data; we must throw away the noise and identify the most promising events. Data reduction tools become crucial for anthropogenic, environmental and local noise identification/removal in order to test and monitor our instrument as we scale up. We present a convolutional encoder-decoder network that assigns an anomaly ranking to events, helping to classify different categories of background and signal.

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