



Title: Synthetic Aperture Radar: From Signals to Code

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Abstract:

Synthetic Aperture Radar (SAR) is a method of using radar to map areas. The method overcomes many drawbacks of using a point source radar to conduct mapping operations. The SAR technique can produce significantly more detailed images compared to a point source radar while using the same or even less advanced radars. However, the high computational cost of SAR makes it difficult to use. But, by using vector instructions, we were able to overcome this challenge and produce images in a few seconds.