知の物理学研究センター

IDI SEMINAL Institute for Physics of Intelligence

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[Deep learning in remote sensing]

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The field of remote sensing enables us to take measurements of the Earth from a distance, typically from aircrafts or satellites. Various types of remote sensing images are now available that provide unique facets of our planet. Out of them, synthetic aperture radar (SAR) images are of great interest because of their ability to provide information even under bad weather and night conditions. With the enormous number of SAR images being collected recently, application of machine learning and deep learning approaches has become possible to identify insightful patterns at an expansive scale. In this talk, I will introduce the rapidly-emerging crossfield of remote sensing and deep learning, with special emphasis on SAR images. I will present my research work on two real-world deep learning applications, ship recognition and change detection, seen through the lens of remote sensing imaging.