# 5G-NIDD: A Comprehensive Network Intrusion Detection Dataset Generated over 5G Wireless Network

Source: https://arxiv.org/abs/2212.01298

The paper "5G-NIDD: A Comprehensive Network Intrusion Detection Dataset Generated over 5G Wireless Network" addresses the increasing complexity and sophistication of 5G networks, which introduces new vulnerabilities. The introduction outlines the motivation for creating a new dataset for network intrusion detection specifically tailored for 5G networks, highlighting the technological advancements and security challenges unique to 5G. The paper then summarizes existing threat detecting mechanisms and why those mechanisms are inefficient in 5G networks, thus establishing the need for 5G-specific intrusion detection datasets. The paper than goes on to explain the methodology used to create the 5G-NIDD dataset and presents a detailed analysis of the dataset, including statistical information, the variety of included attack types, and the dataset's relevance for machine learning models. The authors evaluate the effectiveness of the dataset by testing various machine learning algorithms for intrusion detection, showcasing the dataset's utility in improving detection accuracy.