SLR for: My Research

Paper 1

Title: Machine Learning (ML)-assisted Beam Management in millimeter (mm)Wave Distributed Multiple Input Multiple Output (D-MIMO) systems **Authors:** Karthik R M, Dhiraj Nagaraja Hegde, Muris Sarajlic, Abhishek Sarkar **Published:** 2023-12-30T09:24:19Z **Link:** http://arxiv.org/abs/2401.05422v1 **Abstract:** Beam management (BM) protocols are critical for establishing and maintaining connectivity between network radio nodes and User Equipments (UEs). In Distributed Multiple Input Multiple Output systems (D-MIMO), a number of access points (APs), coordinated by a central processing unit (CPU), serves a number of UEs. At mmWave frequencies, the problem of finding the best AP and beam to serve the UEs is challenging due to a large number of beams that need to be sounded with Downlink (DL) reference signals. The objective of this paper is to investigate whether the best AP/beam can be reliably inferred from sounding only a small subset of beams and leveraging AI/ML for inference of best beam/AP. We use Random Forest (RF), MissForest (MF) and conditional Generative Adversarial Networks (c-GAN) for demonstrating the performance benefits of inference. **Overview:** Error in PDF processing: Error code: 429 - {'error': {'message': 'You exceeded your current quota, please check your plan and billing details. For more information on this error, read the docs: https://platform.openai.com/docs/guides/error-codes/api-errors.', 'type': 'insufficient*quota', 'param': None, 'code': 'insufficient*quota'}}
