



PAWR Project Office

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My poster presents Partial LoRa, a new variant of chirp spread spectrum modulation designed to improve LoRa throughput while preserving its long-range robustness. Partial LoRa transmits only a fraction of each LoRa chirp to reduce symbol and packet duration, thereby reducing collisions in large-scale low-power wide-area networks. We implement Partial LoRa on software-defined radios and evaluate it in real-world settings and on one of the NSF PAWR platforms (ARA platform), where it enables large-scale experiments with multiple wireless nodes. Our results show nearly a 2× improvement in per-link throughput compared with standard LoRa while maintaining comparable communication range and application-level performance.