REPRODUCIBILITY PACKAGE

This document describes the materials provided to reproduce the results reported in: "Leader-Follower Sizing in Heterogeneous UAV Swarms for SAR: Latency–Coverage Trade-Offs via Discrete-Event Simulation."

CONTENTS

The reproducibility materials include:

- poi_1000_all_seeds.xlsx – Raw measurements for workload P=1000 across all random seeds.
- poi_2500_all_seeds.xlsx – Raw measurements for workload P=2500.
- poi_4000_all_seeds.xlsx – Raw measurements for workload P=4000.
- final_summary.xlsx – Aggregated results and computed averages per configuration.
  All files are hosted in an anonymized public repository.

CODE REPOSITORY

The source code, simulator (Gradysim), data, and figure-generation scripts are available at:
https://github.com/anonymousguy2464-a11y/Leader-Follower-Sizing-in-Heterogeneous-UAV-Swarms-for-SAR

The repository contains:

- The discrete-event simulation engine (Gradysim).
- Parameter files for the three PoI workloads.
- Python notebooks and plotting scripts to regenerate tables and figures from the paper.
- The .xlsx data files listed above.

USAGE INSTRUCTIONS

1. Open the repository link above.
2. Follow the included README to install dependencies and run the simulator.
3. Use the provided data files to reproduce the latency–coverage plots and tables.
4. Raw outputs can be regenerated by running the provided batch scripts for each workload.