Conflicts in the wild (M1/M2)

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Conflicts among concurrent operations are believed to be the principal reason of performance degradation in fault-tolerant distributed systems. The recently introduced liveness condition of *conflict-freedom* The goal of the project is to explore the practical benefits of recently introduced liveness condition of *conflict-freedom* in message-passing systems.

For students interested in witnessing the effect theory can bring to practice of distributed systems, some theoretical background (PDS courses SL05, SL06, SL08 should suffice) and practical programming experience will be a bonus.

References:

- Conflict-freedom: https://arxiv.org/abs/2605.19531
- Dynamic conflicts: https://arxiv.org/abs/2511.04631