When Galois gossips.

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Gossip algorithms are pivotal in the dissemination of information within decentralized systems. Consequently, numerous gossip libraries have been developed and widely utilized, especially in blockchain protocols for the propagation of blocks and transactions.A well-established library is LibP2P, which provides two gossip algorithms: floods up and gossibsup. These algorithms enable the delivery of published messages to a set of peers. We improve the performance and reliability of LibP2P by introducing Optimum P2P, a novel gossip algorithm that leverages the capabilities of Random Linear Network Coding (RLNC) to expedite the dissemination of information in a peer-to-peer (P2P) network while ensuring reliable delivery, even in the presence of malicious actors capable of corrupting the transmitted data.

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