Ethereum's mempool is suitable for propagating well-formed transactions via gossip protocol. We are also witnessing intent-based (UniswapX, CoW Swap, Seaport) architectures take off and become standard for the next generation of dApps and DeFi.

Today, it is not a simple task to spin up an intent-based architecture for your dApp. You need a p2p communication network, or some centralized processing server matching peers. Posting data to Ethereum is an option, but is expensive and sometimes you only want to broadcast a temporary message.

I propose: an open, composable gossip layer secured with restaked ETH. Imagine the user flow: I create a new request-for-quote (RFQ) dApp for simple swaps where users sign intents to buy tokens, broadcast those intents to the gossip layer… counterparties (market makers in this case) scan for gossiped intents, proposing swap terms with the initial broadcaster. Only when a deal is reached (original broadcaster is satisfied with proposed terms) is the settlement submitted onchain.

Each dApp can have its own "topic", with custom parameters and constraints to fit the use case. For instance, in the example above, there is no reason for any message to last longer than 15 minutes. Also, it may be fruitful to rate limit participants if necessary, and perhaps restricting message format, both as measures to limit griefing. Finally, topics can have varying levels of authorization and restrictions. Think of it as custom-mempool-as-a-service.

I believe this could be used for far more than simple DeFi CLOB dApps. It is useful for rollup communication, cross chain swaps and interop, scaling by pushing execution/matching logic offchain.

EigenLayer comes in by enforcing the nodes participating in the gossip protocol to act according to the rules*, and incentives them to make messages as broadly available as possible (to authed participants, if applicable).

Thoughts?