

I'm curating a list of open research questions related to Anoma's distributed systems subcomponents. Feel free to respond with anything relevant; I'll edit the top post to keep it up-to-date.

Which consensus algorithms are suitable for the slow game?

Which consensus algorithms are most suitable for the slow game, where we want to be able to run consensus on long timescales which can incorporate user preferences, doesn't rely on a proposer, and supports large numbers (billions) of voters?

Can we make heterogeneous-trust randomized consensus protocols?

Can we make randomized consensus protocols [background](#) heterogeneous, in the style of Heterogenous Paxos and the rest of the Typhon protocol stack?

Can we cleanly characterize the optimisation space of distributed compute and storage?

If we take distributed storage and compute to be distributed cache locality optimisation problems subject to the additional constraint of trust and an unknown & evolving physical network topology, can we characterise the optimisation space cleanly and craft algorithms for dynamically selecting and reselecting storage and compute locations according to the best guess as to the underlying network topology? Can this be done with only local information in a way which composes well?