

Hi all,

I'm Ye Zhang, a Ph.D. student at NYU. We're building a new layer2 system on Ethereum based on Rollup. Here is a draft introduction:

<https://scroll-finance.medium.com/scroll-a-layer-2-ecosystem-based-on-zk-rollup-186ff0d764c>

Three main differences from other Rollup projects:

(1) We are considering combining two different zero-knowledge proof systems for both on-chain and off-chain efficiency. If the recursive proof system is efficient enough, we will also consider that.

(2) We use commitment (UTXO) as the middle layer for interaction between different layer2 ASIC circuits. So ASIC circuits can interact and combine arbitrarily. It's similar to Zexe. We will eventually move to recursive proof for the CPU circuit if it's feasible enough in the future.

(3) We want to use a new incentive mechanism for layer2 mining and let "miners" be volunteers to generate proofs for us. It's a little similar to snarker in Mina. The mechanism is still working under progress thus we didn't provide many details in the article. We think it can eliminate the problem of MEV by separating batching and proving.

We are still at a very early stage for development and hope to get more feedback from the Ethereum community. Also, we are hiring, if anyone is interested in joining, pls email us (hr@scroll.finance). Some are still open problems for all L2. If you are interested in doing research or solving some problems or collaborating or giving suggestions, we can also talk and build a better layer2 together. Email me at silverpoker1998@gmail.com.