Has this mechanism for selecting validators been proposed and/or implemented in any distributed ledgers?

Validators pre-commit hash chains of length w. When creating a block, validators commit the pre-image to the current hash in their hash chain, and combines it with the random number Selector, $hash(x) \oplus Selector$. This random number selects the next validator.

[

selectvalidator

2630×1494 144 KB

](https://ethresear.ch/uploads/default/original/2X/3/3eee5ea7b464b255c2b324b6ccb84bc3584a0d33.jpeg)