

Good to have this classification as a way to formalize the security of different DA schemes!

1. I think the ordering of the levels is a bit confusing since -1 is the highest security, 0 is the lowest and it increases as you go up to 5. Ordering the list based on increasing security might make it more clear. Either full nodes should be Level 6, or they should stay at level -1 and the order of levels 0-5 should be reversed.
2. I'm confused how you've classified the security assumptions at levels 3-5. Why include "honest majority assumption on the committee, with cryptoeconomic incentives or

" along with the DAS security assumptions. I guess your point is that you get both types of security such that even if the DAS assumptions fail, you still have the crypto-economic consequences. If that's the case, maybe there's a better way to explain that as I think people might misinterpret that to mean you still need to make an honest majority assumption for DAS security.

1. I have a small clarification question about level 3. If I understand correctly, level 3 is DAS without the ability for block construction. In such a scenario the block producer could do a selective share disclosure attack against all light nodes (not just the first few). Is that correct? If so the title "without an honest minority of light nodes" is a little confusing as it sounds like a weaker assumption & therefore more secure than "with an honest minority of light nodes". Perhaps we should call level 3 "DAS without block reconstruction", level 4 "DAS with block reconstruction" and level 5 "DAS with block reconstruction & anonymous sampling". I guess your point in labeling level 3 that way is that not having enough honest light nodes is the same as not having block reconstruction in the first place.