

CAC 2.0 : a corrupt and correct logic locking technique resilient to structural analysis attacks

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https://msp.cis.strath.ac.uk/act2022/papers/ACT2022_paper_4413.pdf

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<https://arxiv.org/pdf/2207.06765.pdf>

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<https://arxiv.org/pdf/2201.01136.pdf>

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<https://doi.org/10.48550/arXiv.2307.07747>

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