S2 Table: Assessment of Study Quality—MMAT Tool

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| **Title** | **1.1: Is the sampling strategy relevant to address the research question?** | **1.2: Is the sample representative of the target population?** | **1.3: Are the measurements appropriate?** | **1.4: Is the risk of nonresponse bias low?** | **1.5: Is the statistical analysis appropriate to answer the research question?** | **Comments** |
| Leveraging Public-Private Blockchain Interoperability for Closed Consortium Interfacing | Yes | Yes | No | Yes | No | Proof of Concept |
| Atomic Crosschain Transactions for Ethereum Private Sidechains | Yes | Yes | No | Yes | No | No Implementation |
| InterTrust: Towards an Efficient Blockchain Interoperability Architecture with Trusted Services | No | No | No | Yes | No | Proof of Concept |
| CrossLedger: A Pioneer Cross-chain Asset Transfer Protocol | No | No | No | Yes | No | Proof of Concept |
| Cross hyperledger fabric transactions | Yes | Yes | Yes | Yes | Yes |  |
| An Architecture That Enables Cross-Chain Interoperability for Next-Gen Blockchain Systems | Yes | Yes | Yes | Yes | Yes |  |
| Secure, Efficient, and Privacy-Protecting One-to-Many Cross-Chain Shared Data Consistency Audit | No | No | Yes | Yes | Yes | The document lacks exact information on the participants' chains |
| Bool Network: An Open, Distributed, Secure Cross-Chain Notary Platform | Yes | Yes | Yes | Yes | Yes |  |
| HT2REP: A fair cross-chain atomic exchange protocol under UC framework based on HTLCs and TRE | Yes | Yes | Yes | Yes | Yes |  |
| Hermes: Fault-tolerant middleware for blockchain interoperability | No | No | No | Yes | No | No Implementation |
| Practical AgentChain: A compatible cross-chain exchange system | Yes | Yes | Yes | Yes | Yes |  |
| DCIV: Decentralized cross-chain data integrity verification with blockchain | Yes | Yes | Yes | Yes | Yes |  |
| BeDCV: Blockchain-Enabled Decentralized Consistency Verification for Cross-Chain Calculation | Yes | Yes | Yes | Yes | Yes |  |
| General Purpose Atomic Crosschain Transactions | Yes | Yes | Yes | Yes | Yes |  |
| Atomic cross-chain settlement model for central banks digital currency | No | No | No | Yes | No | Proof of Concept |
| BxTB: cross-chain exchanges of bitcoins for all Bitcoin wrapped tokens | No | No | No | Yes | No | No Implementation |
| A secure dynamic cross-chain decentralized data consistency verification model | Yes | Yes | Yes | Yes | Yes |  |
| MP-HTLC: Enabling blockchain interoperability through a multiparty implementation of the hash time-lock contract | Yes | Yes | No | Yes | No | No Implementation |
| Bridging Sapling: Private Cross-Chain Transfers | No | No | No | Yes | No | No Implementation |
| Cross-Chain Asset Transaction Method Based on Ring Signature for Identity Privacy Protection | Yes | Yes | Yes | Yes | Yes |  |
| A Privacy Protection Scheme for Cross-Chain Transactions Based on Group Signature and Relay Chain | Yes | Yes | Yes | Yes | Yes |  |
| ZeroCross: A sidechain-based privacy-preserving Cross-chain solution for Monero | Yes | Yes | Yes | Yes | Yes |  |
| Proof-of-Work Sidechains | No | No | No | Yes | No | No Implementation |
| Improved Method of Blockchain Cross-Chain Consensus Algorithm Based on Weighted PBFT | No | No | No | Yes | No | No Implementation |
| A framework for efficient cross-chain token transfers in blockchain networks | Yes | Yes | Yes | Yes | Yes |  |
| Analysis of Polkadot: Architecture, Internals, and Contradictions | Yes | Yes | Yes | Yes | Yes |  |
| Cross-Chain Atomic Swaps without Time Locks | Yes | Yes | Yes | Yes | Yes |  |
| zkBridge: Trustless Cross-chain Bridges Made Practical | Yes | Yes | Yes | Yes | Yes |  |
| Verilay: A Verifiable Proof of Stake Chain Relay | Yes | Yes | Yes | Yes | Yes |  |
| A solution to data accessibility across heterogeneous blockchains | Yes | Yes | No | Yes | No | Proof of Concept |
| ChainKeeper: A cross-chain scheme for governing the chain by chain | Yes | Yes | Yes | Yes | Yes |  |
| XChange: A Universal Mechanism for Asset Exchange between Permissioned Blockchains | Yes | Yes | Yes | Yes | Yes |  |
| AucSwap: A Vickrey auction modeled decentralized cross-blockchain asset transfer protocol | Yes | Yes | Yes | Yes | Yes |  |
| A Trusted Reputation Management Scheme for Cross-Chain Transactions | Yes | Yes | Yes | Yes | Yes |  |
| A Voting-Based Blockchain Interoperability Oracle | Yes | Yes | Yes | Yes | Yes |  |
| ARC: An Asynchronous Consensus and Relay Chain-based Cross-chain Solution to Consortium Blockchain | Yes | Yes | No | Yes | No | No Implementation |
| A Decentralized Cross-Chain Service Protocol based on Notary Schemes and Hash-Locking | Yes | Yes | Yes | Yes | Yes |  |
| Cross-chain Jamming Attack with Light Client Verification Clash in IBC Protocol | Yes | Yes | Yes | Yes | Yes |  |
| A notary group-based cross-chain mechanism | Yes | Yes | Yes | Yes | Yes |  |
| Secure cross-chain interaction solution in multi-blockchain environment | Yes | Yes | Yes | Yes | Yes |  |
| Attack and protection schemes on fabric isomorphic crosschain systems | Yes | Yes | Yes | Yes | Yes |  |
| A Cross-Chain Mechanism Based on Hierarchically Managed Notary Group | Yes | Yes | Yes | Yes | Yes |  |
| Cross-Chain Identity Authentication Method Based on Relay Chain | Yes | Yes | Yes | Yes | Yes |  |
| DataFly: A Confidentiality-preserving Data Migration across Heterogeneous Blockchains | Yes | Yes | Yes | Yes | Yes |  |
| GAM: A scalable and efficient multi-chain data sharing scheme | Yes | Yes | No | Yes | No | Proof of Concept |
| IvyCross: a Privacy-Preserving and Concurrency Control Framework for Blockchain Interoperability | Yes | Yes | Yes | Yes | Yes |  |
| Towards Efficient Consistency Auditing of Dynamic Data in Cross-Chain Interaction | Yes | Yes | No | Yes | No | Proof of Concept |
| A cross-chain access control mechanism based on blockchain and the threshold Paillier cryptosystem | Yes | Yes | Yes | Yes | Yes |  |
| A Technique for Ensured Cross Chain IBC Transactions Using TPM | Yes | Yes | Yes | Yes | Yes |  |
| Automated Gateways: A Smart Contract-Powered Solution for Interoperability Across Blockchains | Yes | Yes | Yes | Yes | Yes |  |
| Cross-chain Transaction Tracking Protocol based on Multi-dimensional Digital Watermarking Fingerprints | Yes | Yes | Yes | Yes | Yes |  |
| Enabling complete atomicity for cross-chain applications through layered state commitments | Yes | Yes | Yes | Yes | Yes |  |
| Enabling Trustable Financing: A Verifiable Privacy-Preserving Cross-Chain Protocol | Yes | Yes | Yes | Yes | Yes |  |
| SMPTC3: Secure Multi-Party Protocol Based Trusted Cross-Chain Contracts | Yes | Yes | Yes | Yes | Yes |  |
| XPull: A Relay-Based Blockchain Intercommunication Framework Achieving Cross-Chain State Pulling | Yes | Yes | Yes | Yes | Yes |  |
| {zkCross}: A Novel Architecture for {Cross-Chain}{Privacy-Preserving} Auditing | Yes | Yes | Yes | Yes | Yes |  |