

# BLS Signature Scheme



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- ▶ efficient **pairing**-based signatures
- ▶ **aggregatable.** compress  $n$  signatures into one

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## **applications.**

- compressing signature chains in PKI, SBGP
- reducing bandwidth and storage in blockchains

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**related.**

- draft-yonezawa-pairing-friendly-curves-01
- draft-irtf-cfrg-hash-to-curve-03

# soliciting **feedback**

- ▶ security against rogue public-key attacks
  1. sign (pk || msg) [**BLGS03,BNN07**]
  2. include proofs of possessions [**B03,RY07**]
  3. modify verification [**BDN18**]

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- ▶ ciphersuites
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  - which curves?
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[github.com/pairingwg/bls\\_standard](https://github.com/pairingwg/bls_standard)