

| parameters | q | n = m = k | t (rounds) | S (no. of pk's) | W (seed tree) | Public Key (bytes) | Signature (bytes) |
|-------------|------|-----------|---------------|--------------------|------------------|-----------------------|--------------------------|
| MEDS-9923 | 4093 | 14 | 1152 | 4 | 14 | 9923 | 9896 |
| MEDS-13220 | 4093 | 14 | 192 | 5 | 20 | 13220 | 12976 |
| MEDS-41711 | 4093 | 22 | 608 | 4 | 26 | 41711 | 41080 |
| MEDS-69497 | 4093 | 22 | 160 | 5 | 36 | 55604 | 54736 |
| MEDS-134180 | 2039 | 30 | 192 | 5 | 52 | 134180 | 132528 |
| MEDS-167717 | 2039 | 30 | 112 | 6 | 66 | 167717 | 165464 |

advantages

- single hardness assumption: **MCE**
- simple design and arithmetic
- great flexibility in sizes
- *generic*: room for improvements!

limitations

- resulting pk's and sig's still large
- scaling to higher parameters
- needs more research on MCE
- opportunity: lots of cool research!









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advancing

- new technique to reduce sig. size
- MEDS-13220 to **2088** bytes (-84%)
- still analysing security of technique
- *explore*: potential for new ideas!





