How to win duck-related prizes?

Saturnin[1,2,3]

[1] Inria, France [2] UCL Crypto Group, Belgium [3] NCC Group, Canada

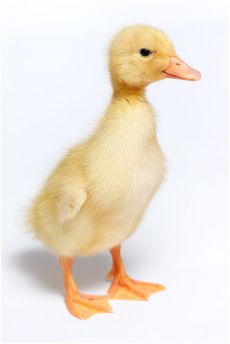
European Research Council

Established by the European Commission

Who am I?

Saturnin: Who am I?

satyʁnɛ̃



Saturnin: Who am I?

- Obviously, a lightweight duck
- A second-round NIST lightweight candidate:

- The only candidate based on a block cipher with 256-bit blocks.
- The only candidate claiming quantum security against superposition queries.
- You'll hear more about me tomorrow.

What's new?

Saturnin: What's new?

- In my update, we propose a new instance: Saturnin-QCB.
- It uses a new mode Q2-safe, efficient and parallelizable

- We need related-key security for this: we use 16 rounds.
- The best RK attack for now: covers 10 rounds (new note in our page).

A new challenge!

https://project.inria.fr/saturnin/challenge

- Both classical and quantum (reduced-round) attacks welcome.
- Targets: Saturnin-QCB and related-key attacks on the block cipher.
- New improved results will be posted and awarded as they arrive.
- The winners will have a choice between several duck-related prizes: will be given in March 2021.
- Please contact us or visit our page for more information.

A new challenge!

Thank you!

No animals were harmed during the preparation of this presentation.