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RnD topics in side channel analysis

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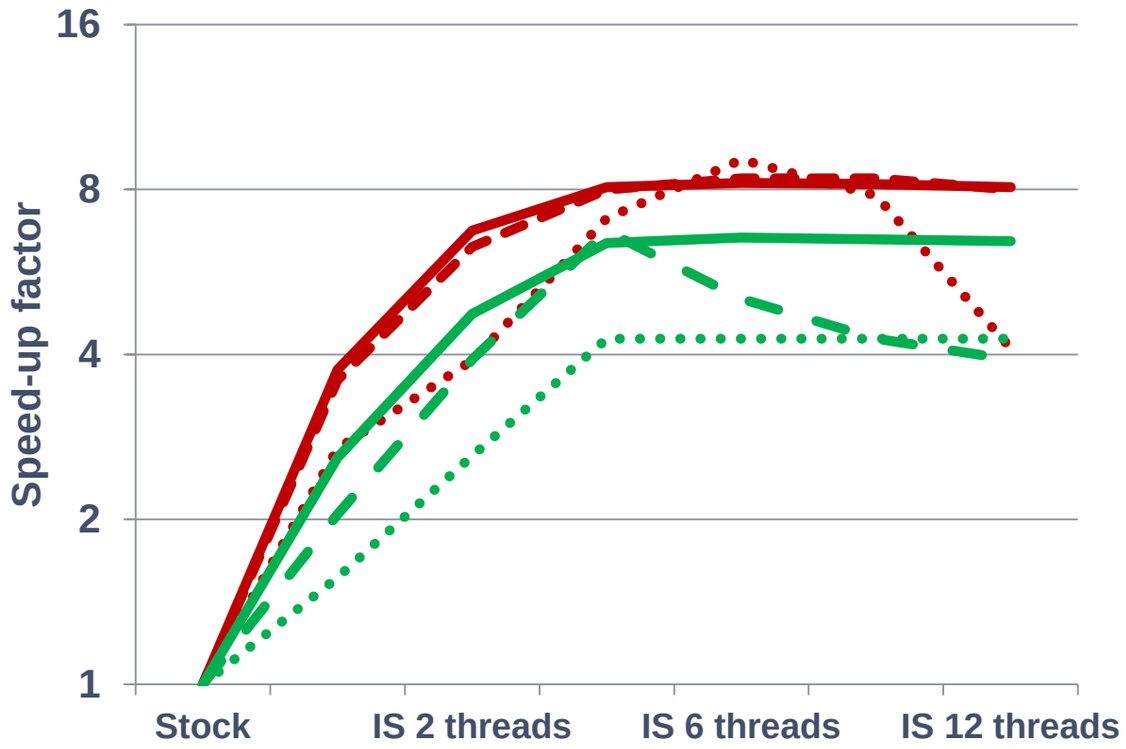
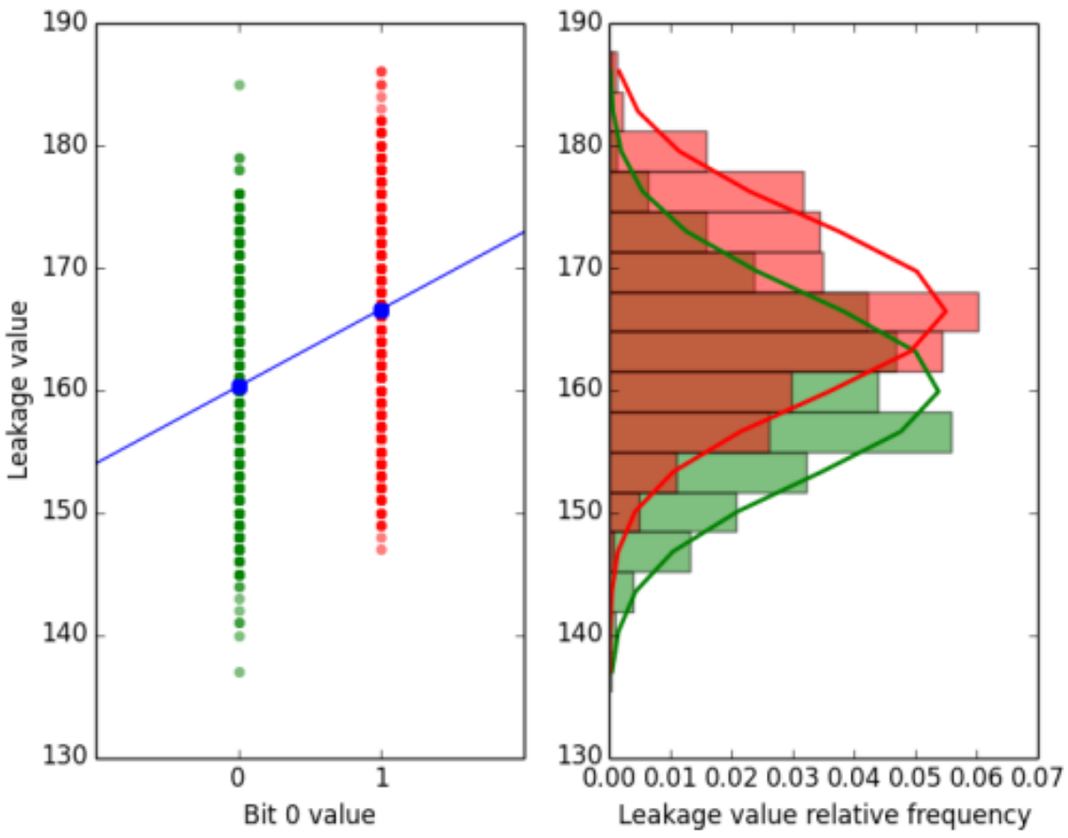
General RnD directions

1. Speed up existing methods

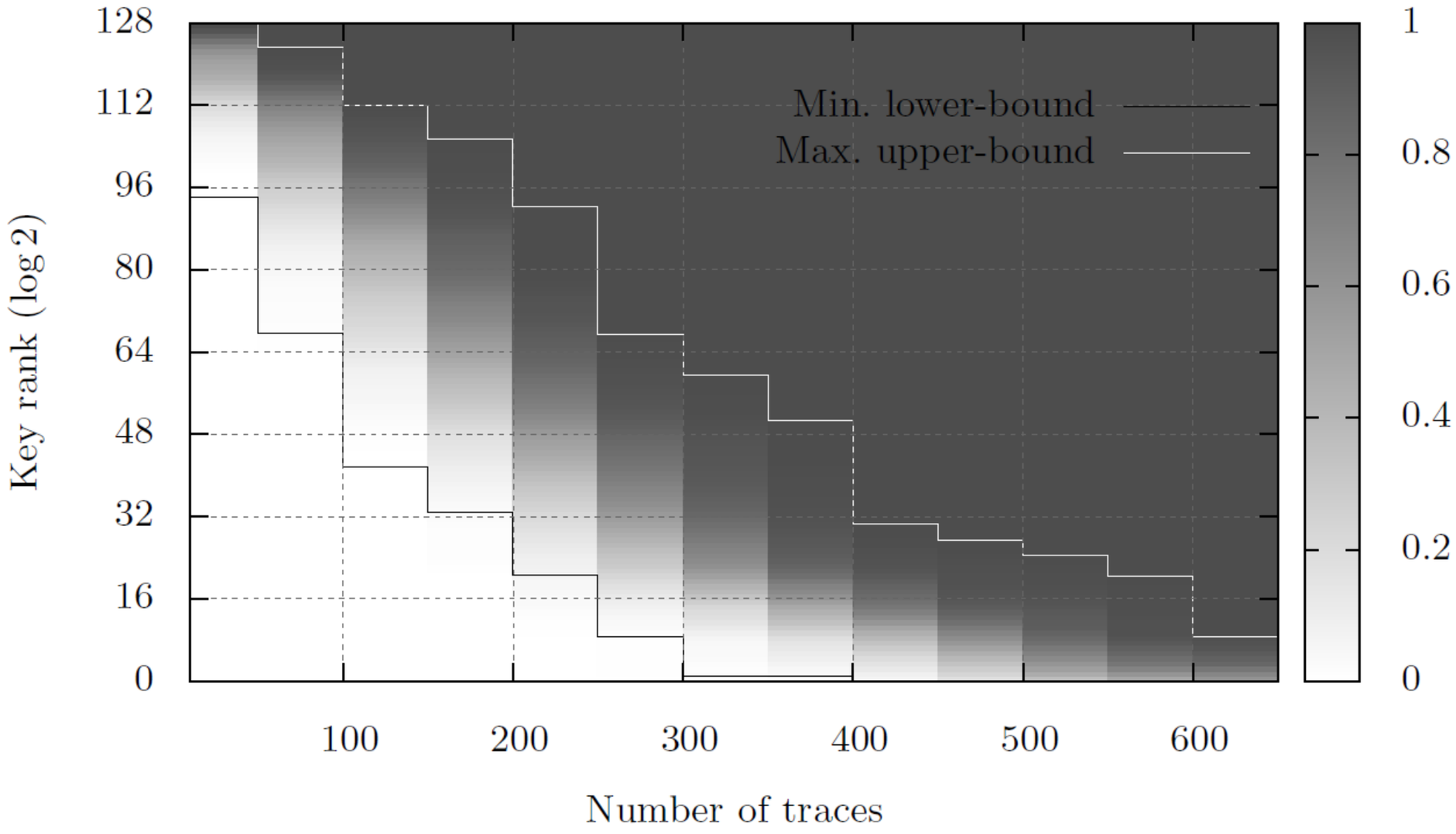




2. Put advanced methods into practice

Example proposal 1

Better metrics for SCA: explore an algorithm for full key rank estimation



eprint 2012/578, eprint 2014/920

Example proposal 2

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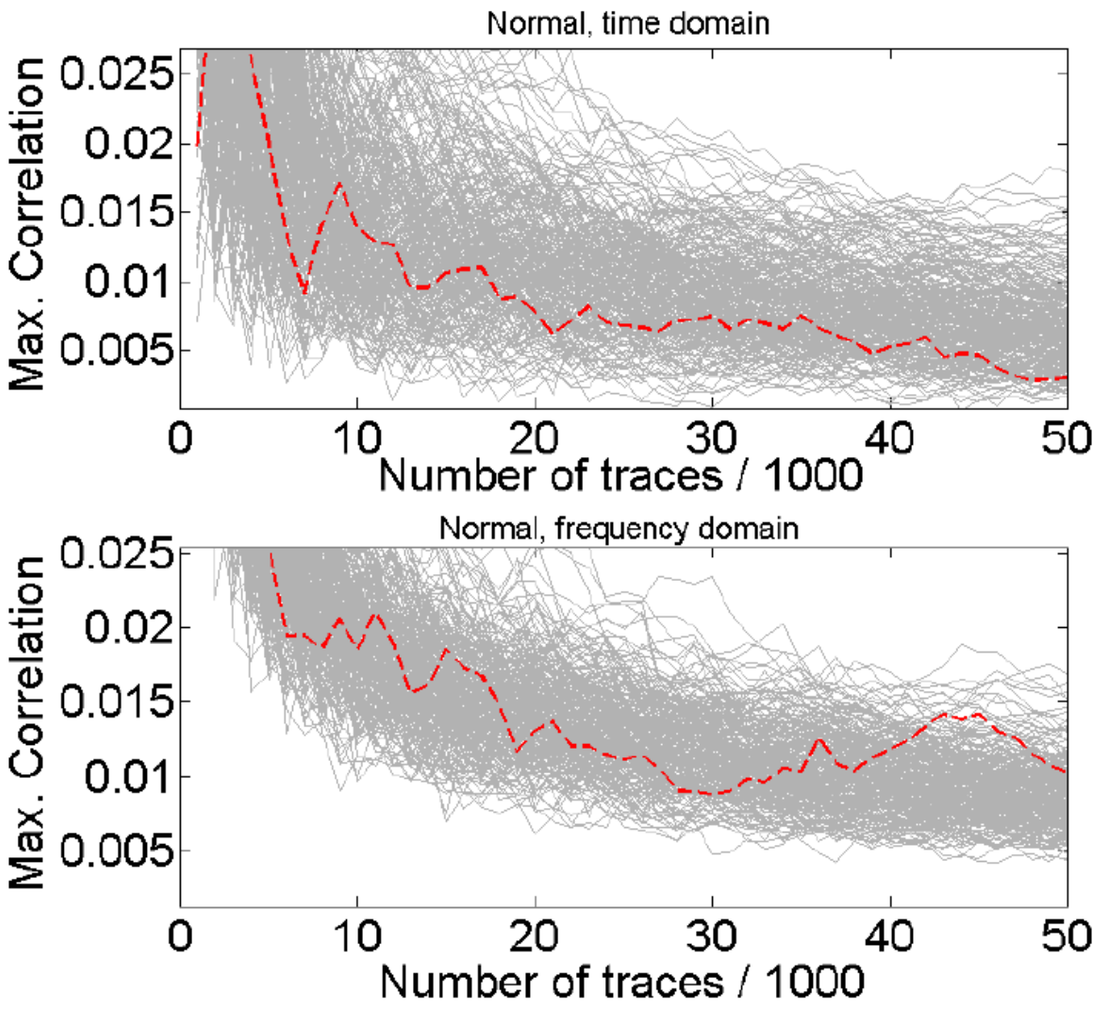
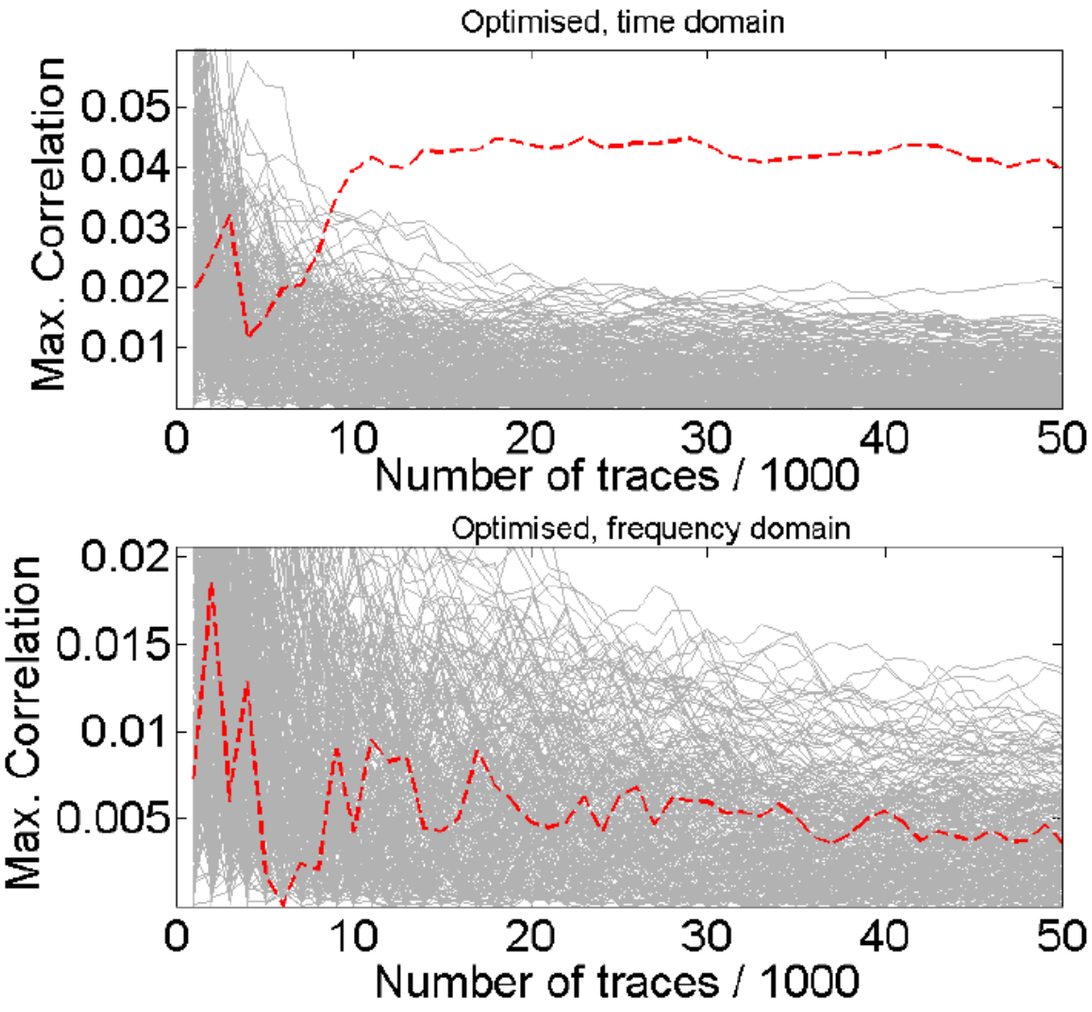
Apply optimal filtering techniques to different targets





cardis.iaik.tugraz.at/proceedings/cardis_2012/CARDIS2012_16.pdf
cosade.org/cosade14/presentations/session7_a.pdf

Good to have

- familiarity with statistics and/or signal processing
- strong programming skills (Java, scientific Python, MATLAB)
- familiarity with embedded devices, e.g. microcontrollers
- desire to implement practical tools and learn how security evaluations are performed

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Challenge your security

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