On the Future of IACR conferences and journals

Concrete proposal by Yevgeniy Dodis

Problems with current system*

➢ Resubmissions are treated "independently"

- *Hard work of current PC is "wasted"* to future committees when paper rejected
- *Authors often do not address serious problems* found, hoping new PC will not notice
- *No archival of reviews/discussion* (useful even for accepted papers, or future submissions to journals)

*Disclaimer: system works (even well!) despite what goes above…

Problems with current system*

➢ Journal culture is completely "messed up"
- **No incentive to be reviewer** (leads to poor reviews, long publication cycle, etc.)
- **Non-uniform quality of papers** (invited papers from TCC, CRYPTO, EC vs. "only good enough for JoC")
- **Poor quality control**: single "author-chosen" editor makes accept/reject decisions based on 2-3 reviews
- **No incentive to submit in US** (conference culture)
- **Nobody reads JoC** (e.g., eprint is good enough)

*Disclaimer: system works (even well!) despite what goes above…

None of these apply to current conferences!

- ***"Fun" to be reviewer*** (credit to PC members, external reviews read/appreciated by a large PC)
  - —leads to decent-to-excellent review quality*

- ***Best papers are selected by a large group of people***, applying the same uniform principles in the "open"

- ***Quick publication cycle & knowledge dissimilation***

- ***Leads to prestige + immediate impact***

*Except for recent editions of Eurocrypt

But…

- ***Not expected to check correctness thoroughly***
  - unlike journals (supposedly ☺)
- ***Full version not enforced***
  - and sometimes never appears or gets checked!
- ***Leads to occasional serious mistakes and questions confidence in the system***

New Proposed System

- **_A single portal for all IACR papers_**
    - —Merges together IACR conferences, JoC, Eprint and newly created **Journal of IACR (JoI)**.
    - —**Only one "paper directory"** (multiple versions OK)
    - —Modulo access control, **all reviews/discussions stick**
    - —Keeps current submission process for conferences, **with all the "positives"** (no messing with a good thing!)
    - —Adds a simple way to submit to JoI (either directly or **as "by-product" of conference submission**)

Initial Submission

- Can submit to Eprint, JoI and/or IACR Conference
- **Eprint**: accepted unrefereed (modulo syntax, like now)
- **Conference**: only before deadline + goes to conference PC
  - Same reviewing process as now, but reviews stick for *resubmissions*!
  - If *also* submitted to JoI, additionally decide "JoI accept/reject" (conference accepts are automatically JoI accepted, *some* rejects as well)
- **JoI**: **treated as a conference** (with all positives!), except *correctness is expected to be checked more thoroughly*
  - Has its own "PC" (called "editorial board", on rotating basis)
  - But only gets submissions which were:
    - submitted to JoI but ***not*** a conference
    - **"JoI accepted" by a conference** (then 3-4 conference PC members join the editorial board for this paper, and are expected to handle it till publication)

Resubmission

- **Initial reviews (and prior paper versions) stick**

- Must explain **changes from last version on front page**

- Options to be decided:

  - appendix detailing how prior comments were addressed?

  - limit number of resubmissions (esp. to conferences)?

  - "permanent reject" status (esp. for "junk papers")?

  - force Eprint version for all accepts (or even submissions)?

What about Journal of Cryptology?

- **Becomes invitation-only (no direct subs)**

- Only gets few *best papers* from conferences or JoI

- Becomes more prestigious, and *read with interest* !

- Keeps (or improves!!) its high ISI index as a result

Summary

- Keeps positives from conferences
  - Fun reviewing, quick turnaround, prestige, …
- Makes easier to publish in (and review for!) journals
  - Treats them as conferences with higher correctness bar
  - Seamless/fast transition from conference to journal
- Keeps one "paper directory", sticky reviews, etc.
- Makes JoC relevant and higher quality