

**From:** [Moody, Dustin \(Fed\)](#)  
**To:** [Perlner, Ray A. \(Fed\)](#); (b) (6)  
**Subject:** Re: question  
**Date:** Friday, February 17, 2017 11:56:25 AM

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We could also shorten the experiments section. We don't have as much data as last time. I tried to say these experiments were just a sanity check. So condensing it would be fine with me.

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**From:** Perlner, Ray (Fed)  
**Sent:** Friday, February 17, 2017 10:06:51 AM  
**To:** Daniel Smith  
**Cc:** Moody, Dustin (Fed)  
**Subject:** RE: question

Can you move the section on completing the key recovery into an appendix?

**From:** Daniel Smith (b) (6)  
**Sent:** Friday, February 17, 2017 4:32 AM  
**To:** Perlner, Ray (Fed) <[ray.perlner@nist.gov](mailto:ray.perlner@nist.gov)>  
**Cc:** Moody, Dustin (Fed) <[dustin.moody@nist.gov](mailto:dustin.moody@nist.gov)>  
**Subject:** Re: question

What should we do about the length? The cfp said that submissions had to retain lncs standard margins with no adjustments. When I remove our cheat, we have a couple of pages too much.

On Thu, Feb 16, 2017 at 2:48 PM, Daniel Smith (b) (6) wrote:

Attached are my edits. Please check that nothing is crazy. I haven't proofread it yet. I'll give it a look soon, but I'm busy for a while.

Cheers,  
Daniel

On Thu, Feb 16, 2017 at 12:22 PM, Perlner, Ray (Fed) <[ray.perlner@nist.gov](mailto:ray.perlner@nist.gov)> wrote:

If you do the same trick of only changing one coordinate of  $w_1$  and  $w_2$  at a time, I'm pretty sure you can get the search down to  $s^4$ , at which point the  $s^{2\omega}$  rank calculation is the limiting step.

**From:** Daniel Smith (b) (6)  
**Sent:** Thursday, February 16, 2017 12:20 PM  
**To:** Perlner, Ray (Fed) <[ray.perlner@nist.gov](mailto:ray.perlner@nist.gov)>; Moody, Dustin (Fed) <[dustin.moody@nist.gov](mailto:dustin.moody@nist.gov)>  
**Subject:** question

Dustin brings up again the issue of  $s^6$  vs  $s^{2\omega}$  in the context of the quadratic scheme. I recall Ray saying that there is a way to make it  $s^{2\omega}$  but I'm not seeing it right now. Don't we have to search a 3-dim space over  $GF(s^2)$ ? Wouldn't this be  $s^6$ ?

I'm trying to finish a revised intro, outro, but this data is relevant.

Cheers!