

**From:** [Miller, Carl A. \(Fed\)](#)  
**To:** [Wayne, Michael \(Assoc\)](#)  
**Subject:** Re: Carl Miller  
**Date:** Tuesday, August 9, 2016 11:20:12 AM  
**Attachments:** [OutlookEmoji-.png](#)

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Ok, sure. See you at 1:30pm!

-Carl

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**From:** "Wayne, Michael (Assoc)" <[michael.wayne@nist.gov](mailto:michael.wayne@nist.gov)>  
**Date:** Tuesday, August 9, 2016 at 11:19 AM  
**To:** "Miller, Carl A. (Fed)" <[carl.miller@nist.gov](mailto:carl.miller@nist.gov)>  
**Subject:** Re: Carl Miller

Hi Carl,

Today works. Do you want to stop by the lab then at 1:30? To get here you need to go to Building 101 and take the elevator up to the 11th floor. Then walk down the hallway, take the first stairs to your left, and go up to the 12th floor. We're the first door you'll see.

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**From:** Miller, Carl A. (Fed)  
**Sent:** Friday, August 5, 2016 6:20:52 PM  
**To:** Wayne, Michael (Assoc); Bienfang, Joshua C. (Fed)  
**Subject:** Re: Carl Miller

Hi Michael —

It would be great to chat and to see the RNG. I worked on the theory of quantum RNGs over the last several years and last year started learning more into the experimental side. It will be great to hear about your work. How about Tuesday next week at 1:30pm? (I'll be at UMD on Monday.)

Have a great weekend.

-Carl

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**From:** "Wayne, Michael (Assoc)" <[michael.wayne@nist.gov](mailto:michael.wayne@nist.gov)>  
**Date:** Friday, August 5, 2016 at 4:46 PM  
**To:** "Bienfang, Joshua C. (Fed)" <[joshua.bienfang@nist.gov](mailto:joshua.bienfang@nist.gov)>, "Miller, Carl A. (Fed)" <[carl.miller@nist.gov](mailto:carl.miller@nist.gov)>  
**Subject:** Re: Carl Miller

Hi Carl, welcome! Yay to ECE, but boo to Michigan (I am an ECE student in Paul Kwiat's quantum information group at Illinois). 😊

It seems as if we have a lot of overlap in our research interests, so if you'd like to meet up just let me know. Josh is gone, but if you'd like to come see the RNG i've been building you're more than welcome to. It's sealed in a box .... but we can talk about it at least.

Shoot me an email when you arrive, or give me a call at x5542, and we'll set something up.

Michael

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**From:** Bienfang, Joshua C. (Fed)  
**Sent:** Friday, August 5, 2016 11:05:13 AM  
**To:** Miller, Carl A. (Fed)  
**Cc:** Wayne, Michael (Assoc)  
**Subject:** Re: Carl Miller

Hi Carl,

Welcome! I'm happy you're at NIST! I'm on vacation right now but I look forward to connecting when I get back. You might be interested in the RNG we've developed for the Bell test. For low latency we apply no post-processing (hash, etc.), but rather applying weak feedback to eliminate slow drifts from the system. I've cc'd Michael Wayne, who's been building this system.

Best,  
Josh

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**From:** Miller, Carl A. (Fed)  
**Sent:** Thursday, August 4, 2016 3:46 PM  
**To:** Peralta, Rene (Fed); Kuo, Paulina (Fed); Nam, Sae Woo (Fed); Mink, Alan (Assoc); Bienfang, Joshua C. (Fed)  
**Subject:** Re: Carl Miller

Hi folks —

It would be great to chat if you have time — Tuesday and Wednesday next week are both good days. (If you're tied up we can always try to connect later.)

-Carl

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**From:** "Peralta, Rene (Fed)" <[rene.peralta@nist.gov](mailto:rene.peralta@nist.gov)>  
**Date:** Thursday, August 4, 2016 at 8:48 AM

**To:** "Kuo, Paulina (Fed)" <[paulina.kuo@nist.gov](mailto:paulina.kuo@nist.gov)>, "Nam, Sae Woo (Fed)" <[saewoo.nam@nist.gov](mailto:saewoo.nam@nist.gov)>, "Mink, Alan (Assoc)" <[alan.mink@nist.gov](mailto:alan.mink@nist.gov)>, "Bienfang, Joshua C. (Fed)" <[joshua.bienfang@nist.gov](mailto:joshua.bienfang@nist.gov)>  
**Cc:** "Miller, Carl A. (Fed)" <[carl.miller@nist.gov](mailto:carl.miller@nist.gov)>  
**Subject:** Carl Miller

Hi Paulina, Alan, Sae Woo, Josh,

Carl Miller just joined the Computer Security Division. His areas of research include randomness and quantum information processing. In particular, he is interested in developing true quantum random number generators. Let us set up a meeting so that you can meet and have an experimentalists-mathematicians bonding (hmmm, will this pass the NIST email filters?).

Rene.