

**From:** [Moody, Dustin \(Fed\)](#)  
**To:** [Dang, Thinh H. \(Fed\)](#)  
**Subject:** RE: checking in  
**Date:** Tuesday, August 8, 2017 10:44:52 AM

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That might be difficult, but worth trying.

Can you guess what the map should look like? For example, using the same kind of idea in Theorem 4 and its proof of

<https://eprint.iacr.org/2011/430.pdf>

Dustin

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**From:** Dang, Thinh H. (Fed)  
**Sent:** Tuesday, August 08, 2017 10:40 AM  
**To:** Moody, Dustin (Fed) <dustin.moody@nist.gov>  
**Subject:** Re: checking in

Hello Dr. Moody. I'm doing well. I'm trying to do symbolic calculations to see if I can compose all the maps that way.

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**From:** Moody, Dustin (Fed)  
**Sent:** Tuesday, August 8, 2017 9:09:02 AM  
**To:** Dang, Thinh H. (Fed)  
**Subject:** RE: checking in

Thinh,

I haven't heard from you in awhile. How are you?

Dustin

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**From:** Moody, Dustin (Fed)  
**Sent:** Thursday, August 03, 2017 12:37 PM  
**To:** Dang, Thinh H. (Fed) <[thinh.dang@nist.gov](mailto:thinh.dang@nist.gov)>  
**Subject:** Re: checking in

Thinh,

Just checking on your progress this week. How is everything?

Dustin

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**From:** Dang, Think H. (Fed)  
**Sent:** Wednesday, July 26, 2017 2:57:04 PM  
**To:** Moody, Dustin (Fed)  
**Subject:** Re: checking in

I'll try that.

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**From:** Moody, Dustin (Fed)  
**Sent:** Wednesday, July 26, 2017 2:49:32 PM  
**To:** Dang, Think H. (Fed)  
**Subject:** RE: checking in

Can you do a bunch of 5-isogenies? Then try to guess what the form of the isogeny should be, perhaps.

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**From:** Dang, Think H. (Fed)  
**Sent:** Wednesday, July 26, 2017 2:37 PM  
**To:** Moody, Dustin (Fed) <[dustin.moody@nist.gov](mailto:dustin.moody@nist.gov)>  
**Subject:** Re: checking in

I haven't been focusing on a specific degree. I'd just choose a random point to generate the kernel, and construct the isogeny from that. I haven't seen any pattern yet.

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**From:** Moody, Dustin (Fed)  
**Sent:** Wednesday, July 26, 2017 1:25:18 PM  
**To:** Dang, Think H. (Fed)  
**Subject:** RE: checking in

What degree(s) are you trying? How many examples? Notice any patterns?

Dustin

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**From:** Dang, Think H. (Fed)  
**Sent:** Wednesday, July 26, 2017 1:17 PM  
**To:** Moody, Dustin (Fed) <[dustin.moody@nist.gov](mailto:dustin.moody@nist.gov)>  
**Subject:** Re: checking in

yes I have

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**From:** Moody, Dustin (Fed)  
**Sent:** Wednesday, July 26, 2017 1:16:14 PM

**To:** Dang, Think H. (Fed)  
**Subject:** RE: checking in

Have you been able to compute some examples then (of composing all the maps together)?

Dustin

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**From:** Dang, Think H. (Fed)  
**Sent:** Wednesday, July 26, 2017 11:56 AM  
**To:** Moody, Dustin (Fed) <[dustin.moody@nist.gov](mailto:dustin.moody@nist.gov)>  
**Subject:** Re: checking in

Dr. Moody;

The map in the Twisted Hessian Curve paper seems to work well. The omega involved in that map, even if only exists in a quadratic extension of the base field, vanishes after all the maps are composed together. So the result of the composition is still defined over the base field.

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**From:** Moody, Dustin (Fed)  
**Sent:** Wednesday, July 26, 2017 7:34:29 AM  
**To:** Dang, Think H. (Fed)  
**Subject:** checking in

Think,

How is everything going these days? I will be downtown until this afternoon, and will be out of the office tomorrow and Friday. Making any headway? Any interesting examples?

Dustin