

John Kaminsky

From: Sydney Vernon <sydneyv@gmail.com>
Sent: Wednesday, July 27, 2022 1:53 PM
To: John Kaminsky
Subject: Re: Talk about applied math research?

Great, thank you so much! Here is a link for 2pm: <https://duo.app.goo.gl/4RdJoM1XJGmbDW9dXP6RLD>
Sydney

On Wed, Jul 27, 2022 at 8:12 AM John Kaminsky <jkaminsky@eastsideprep.org> wrote:

Then 2PM it is.

Dr. Kaminsky

From: Sydney Vernon <sydneyv@gmail.com>
Sent: Wednesday, July 27, 2022 7:46 AM
To: John Kaminsky <jkaminsky@eastsideprep.org>
Subject: Re: Talk about applied math research?

1pm works! (2pm works better but can definitely do 1)!

Thank you again,

Sydney

Sent from my iPhone

On Jul 26, 2022, at 4:25 PM, John Kaminsky <jkaminsky@eastsideprep.org> wrote:

Would 1PM work?

Dr. Kaminsky

From: Sydney Vernon <sydneyv@gmail.com>
Sent: Tuesday, July 26, 2022 1:56 PM
To: John Kaminsky <jkaminsky@eastsideprep.org>
Subject: Re: Talk about applied math research?

Thank you so much--absolutely no worries about not getting to the paper, I think trying to explain what's going on will be good for me:)

I'm free anytime in the afternoon!

Thanks,

Sydney

On Tue, Jul 26, 2022 at 10:24 AM John Kaminsky <jkaminsky@eastsideprep.org> wrote:

Hey Sydney,

Yes, I am available tomorrow. I will try to look over the paper you sent me before then but can't guarantee I will get to it.

Dr. Kaminsky

From: Sydney Vernon <sydneyv@gmail.com>
Sent: Monday, July 25, 2022 9:06 PM
To: John Kaminsky <jkaminsky@eastsideprep.org>
Subject: Re: Talk about applied math research?

Hi Dr. Kaminsky,

Awesome, thank you so much!

I know this is super soon but I am free Wednesday if that works for you.

Other than that, Sunday and later works for me, just let me know when you are available.

Thanks again!!

Sydney

Sent from my iPhone

On Jul 24, 2022, at 3:46 PM, John Kaminsky <jkaminsky@eastsideprep.org> wrote:

Hello Sydney,

Absolutely am I available to meet with you. I will do my best as control theory is a little outside my own field. Let me know a good time for you, as I am fairly open before EPS heads back at the end of August.

Looking forward to catching up and talking math,

Dr. Kaminsky

From: Sydney Vernon <sydneyv@gmail.com>
Sent: Sunday, July 24, 2022 1:40 PM
To: John Kaminsky <jkaminsky@eastsideprep.org>
Subject: Talk about applied math research?

Hi Dr. Kaminsky,

This is Sydney Vernon from EPS, hope you're doing well!!

Thanks to my math and CS classes at EPS, I have the opportunity to do exciting summer research with a Caltech grad student in control theory. I also declared my major (Applied and Computational Math!) which is pretty close to real math. :)

That said, my research is remote, so there's not a lot of room to dig into the math, discuss it with the grad students, and make sure I understand it. I was wondering if you'd be willing to meet with me over Zoom to catch up, and talk about some of the math ideas I'm working with? (No pressure, only if this would be interesting for you--but so far I think the topics are really interesting!)

Thanks so much, would love to catch up and talk about math!

Sydney

More info on the research if you're interested:

- my mentor's paper, which I am working off of: <https://arxiv.org/pdf/2205.02187.pdf>

- eventually, I will be building and applying a neural network to optimize the alpha values in the paper above

- proposed applications for the controller (derived in the paper) are an inverted pendulum and a drone (!)