



Bob Eisenberg <bob.eisenberg@gmail.com>

Estimators and Continuum Theories have much in common

1 message

Bob Eisenberg <bob.eisenberg@gmail.com>

Wed, Feb 4, 2015 at 7:00 AM

Reply-To: bob.eisenberg@gmail.com

To: xiantao li <xli@math.psu.edu>, Chun Liu <liu@math.psu.edu>, Andrew Belmonte <alb18@psu.edu>, "Bob Eisenberg beisenbe@rush" <beisenbe@rush.edu>

Dear Xiantao

I know how busy family life can be.
I look forward to more time together
in March.

YOU better than anyone else can
solve the puzzle of making MD satisfy
the laws of electricity.

Note a problem we have not discussed
but that is quite relevant to the conference.

Let's assume for the minute that MD produced
perfect trajectories lasting long enough to
deal with macroscopic phenomena

How do you deal with that number of numbers
i.e., that number of trajectories?

How do you compare them with experiments which
almost never measure trajectories directly?

ANSWER You need an estimator in the
EXACT meaning of that word in probability
and statistics (there is a large and important
theory of estimation in statistics and probability
and in the theory of stochastic processes).

**Crafting the estimator will have almost the
same problems as crafting a continuum
theory, in my view.**

**"Crafting" is an unusual English/American
word but an important one in this context.
It implies a mixture of math, science,
and art/intuition**

**As ever
Bob**

As ever
Bob

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Return Address for email: [beisenbe@rush.edu](mailto:beisenbe@rush.edu) or [bob.eisenberg@gmail.com](mailto:bob.eisenberg@gmail.com)

Bob aka RS Eisenberg

Bard Endowed Professor and Chairman  
Dept of Molecular Biophysics & Physiology  
Rush Medical Center  
1653 West Congress Parkway  
Chicago IL 60612 USA  
Office Location: Room 1291 of  
Jelke Building at 1750 West Harrison

Email: [beisenbe@rush.edu](mailto:beisenbe@rush.edu)

Voice: +312-942-6467

FAX: +312-942-8711

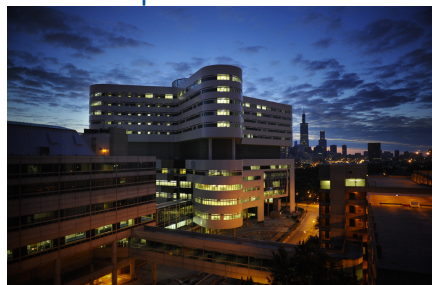
FAX to Email: +801-504-8665

Department WebSite: <http://www.phys.rush.edu/>

Personal WebSite: <http://www.phys.rush.edu/RSEisenberg/>

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New hospital tower at Rush



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On Tue, Feb 3, 2015 at 4:04 PM, xiantao li <[xli@math.psu.edu](mailto:xli@math.psu.edu)> wrote:

Dear Bob,

My apologies! I got so busy at home these days and I did not get a chance to talk to you. I hope that you had a nice trip back to Chicago.

I also hope that during the workshop in March, we can get together and discuss the ideas that we presented in the proposal, and see how to proceed with the approach. I believe that the approach is consistent with the energetic variations, and it is also consistent with the molecular dynamics models.

Xiantao

On 2/2/15 11:16 AM, Bob Eisenberg wrote:

you won't miss anything new!

stay warm and dry

as ever  
Bob

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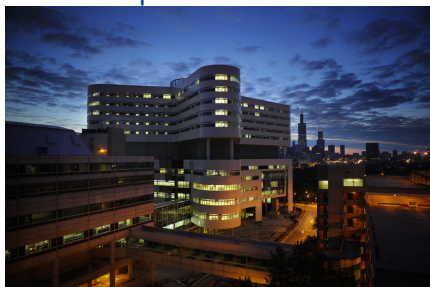
Return Address for email: beisenbe@rush.edu or bob.eisenberg@gmail.com

Bob aka RS Eisenberg
Bard Endowed Professor and Chairman
Dept of Molecular Biophysics & Physiology
Rush Medical Center
1653 West Congress Parkway
Chicago IL 60612 USA
Office Location: Room 1291 of
Jelke Building at 1750 West Harrison

Email: beisenbe@rush.edu
Voice: +312-942-6467
FAX: +312-942-8711
FAX to Email: +801-504-8665
Department WebSite: <http://www.phys.rush.edu/>
Personal WebSite: <http://www.phys.rush.edu/RSEisenberg/>

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New hospital tower at Rush



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On Mon, Feb 2, 2015 at 11:11 AM, xiantao li <xli@math.psu.edu> wrote:

Dear Bob and Chun,
I have to stay home this morning due to the school closure, and unfortunately, I will miss the lunch seminar. But I will come to the colloquium this afternoon. See you then.

Xiantao

