

## NEWSLETTER / BULLETIN

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The NEWSLETTER is a publication of the Canadian Mathematics Education Study Group

Ce BULLETIN est une publication du Groupe canadien d'étude en didactique des mathématiques

*CMESG is a group of mathematicians and mathematics educators who meet annually to discuss mathematics education issues at all levels of learning. The aims of the Study Group are:*

*Le GCEDM est composé de personnes œuvrant en mathématiques et en didactique des mathématiques et qui se réunissent une fois par année pour étudier diverses questions relatives à l'enseignement des mathématiques à tous les niveaux. Les buts du Groupe sont les suivants:*

- 1) to study the theories and practices of the teaching of mathematics
- 2) to promote research in mathematics education
- 3) to exchange ideas and information about all aspects of mathematics education in Canada
- 4) to disseminate the results of its work.

- 1) susciter une réflexion critique sur la théorie et la pratique de l'enseignement des mathématiques
- 2) encourager la recherche en didactique des mathématiques
- 3) faciliter l'échange d'idées et d'information sur tous les aspects de l'éducation mathématique au Canada
- 4) faire connaître les résultats de ses travaux.

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# PRESIDENT'S MESSAGE DU PRÉSIDENT

Elaine Simmt

2014 is turning out to be Canada's year of the mathematics education conference. The [Canadian Mathematics Education Forum](#) was held in Ottawa, Ontario, from Thursday May 1st to Sunday May 4th, at the Faculty of Education, University of Ottawa. No sooner will we unpack our suitcases, we will be preparing for our own annual conference, [CMESG](#) May 30 – June 3 at the University of Alberta in Edmonton. After a few weeks at home we will be packing our suitcases again for Vancouver and joining our international colleagues for PME / PMENA hosted by the University of British Columbia and Simon Fraser University, July 15 – 20. Of course there is also the education strand of the [Canadian Mathematics Society](#) summer meeting hosted by the University of Manitoba in Winnipeg.

Although you have many conference choices know that you are most welcome to join us in Edmonton for our annual meeting. Thank you to everyone who has agreed to take on a presentation or leadership role at the conference. Your participation is most appreciated. As well, all members are invited to present in the math gallery. Do you have a new puzzle or problem? Have you a research study in progress? Do you have a recently completed book or paper? Almost anything goes in the Math Gallery. It is an excellent means by which we can learn what is happening in mathematics education in Canada and build our teaching and research networks. Send me a note if you wonder if your idea is suitable for the math gallery. See you in Edmonton!

This year brings an end to my presidency. I am pleased to announce that Olive Chapman, University of Calgary, will be the new president. Joining Olive on the CMESG executive are Caroline LaJoie (2 year term), Viktor Frieman (1 year remaining on term), Peter Liljedahl (1 year remaining on term). I would like to pass on my sincere thanks to all members of the current executive, Lucie DeBlois, Dave Lidstone, Miroslav Lovric, Peter Liljedahl and Viktor Freiman.

2014 est en voie d'être l'année des conférences en éducation et en didactique des mathématiques au Canada. Le [forum canadien de l'éducation en éducation des mathématiques](#) s'est tenu du mardi 1er mai au dimanche 4 mai à la faculté d'éducation de l'université d'Ottawa. Un peu plus tard, nous préparons notre rencontre annuelle du [groupe canadien](#) du 30 mai au 3 juin à l'Université d'Alberta à Edmonton. Après quelques semaines à la maison nous referons nos valises pour Vancouver et nous joindrons nos collègues internationaux pour le PME / PMENA, qui sont les invités de l'Université Colombie-Britannique et de l'Université Simon Fraser du 15 au 20 juillet. Bien sûr, il ne faut pas oublier la rencontre estivale de la [société mathématique canadienne](#) qui sera reçue par l'Université du Manitoba à Winnipeg.

Bien que nous ayons à choisir à travers toutes ces conférences, vous êtes cordialement invités à notre rencontre annuelle à Edmonton. Merci à chacun d'entre vous qui avez accepté de faire une présentation ou de jouer un rôle de leader. Votre participation est très appréciée. Je vous rappelle que chaque membre est invité à présenter à la galerie mathématique. Investiguez-vous un nouveau problème? Avez-vous une recherche en cours? Avez-vous récemment complété un livre ou un article? Presque tout est bienvenu à la galerie mathématique. C'est un excellent moyen par lequel nous pouvons apprendre ce qui arrive en éducation et en didactique des mathématiques au Canada. Envoyez-moi une note si vous souhaitez savoir si vos idées peuvent être présentées à la galerie mathématique. À bientôt à Edmonton!

Cette année annonce la fin de ma présidence. Je suis heureuse de vous annoncer qu'Olive Chapman, de l'Université de Calgary, deviendra la nouvelle présidente. Se joindra à Olive, de l'exécutif du groupe canadien, Caroline Lajoie (pour un terme de 2 ans), Viktor Frieman et Peter Liljedahl. J'aimerais remercier sincèrement tous les membres du comité exécutif actuel Lucie DeBlois, Dave Lidstone, Miroslav Lovric, Peter Liljedahl et Viktor Freiman.

# NOTICES / AVIS

## Up-coming Conferences and Events



### Plenary Lectures – *Mathematics Education at the Edge*

George Hart (USA); Luis Radford (Canada); Orit Zaslavsky (Israel and USA); Gabriele Kaiser (Germany)

### Plenary Panel – *The Calculus of Social Change – Mathematics at the Cutting Edge*

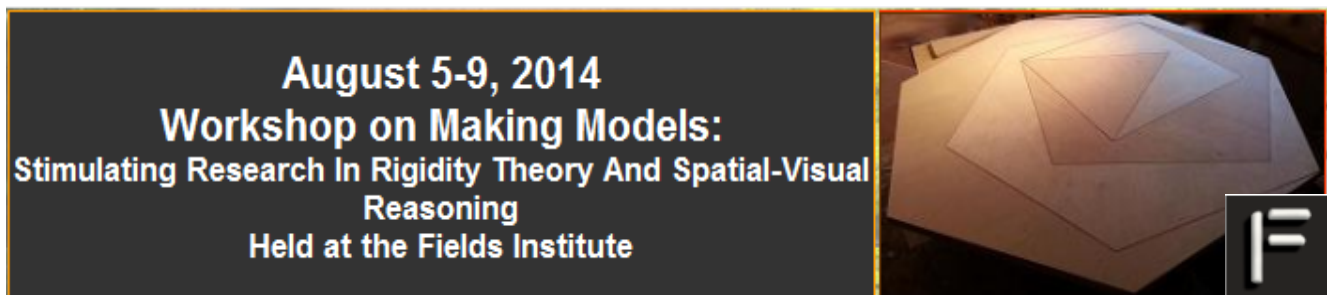
David Wagner (Canada), Paola Valero (Denmark), Margaret Walshaw (New Zealand), Anjum Jalai (Pakistan and Tanzania), Mamokgethi Setati Phakeng (South Africa, Convener)

For more information: <http://www.pme38.com/>



**Congratulations et Félicitations to Gerda de Vries (Alberta) who will be receiving this year's Excellence in Teaching Award!**

For more information: <https://cms.math.ca/Events/summer14/>



*Bringing together researchers in mathematics and mathematics education*

For more information: [http://www.fields.utoronto.ca/programs/scientific/14-15/making\\_models/](http://www.fields.utoronto.ca/programs/scientific/14-15/making_models/)

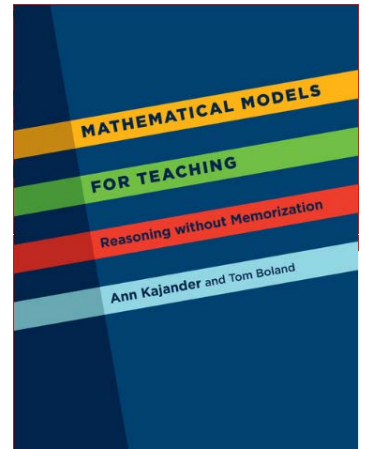
## Book Release

The Canadian Scholars' Press has published a new book by Ann Kajander and Tom Boland. It is a book designed as a course text for mathematics (content) courses for elementary teachers, although it also might be useful for in-service. It focuses particularly on the kinds of specialised content knowledge - such as use of models and manipulatives - teachers use in their work.

Kajander, A. & Boland, T. (2014). *Mathematical models for teaching: Reasoning without memorization*. Toronto: Canadian Scholar's Press.

For more information and to purchase a copy, visit:

<http://www.cspi.org/books/mathematical-models-for-teaching>



## Story Competition



Open to all types of storytellers, of all ages, the Fields Institute for Research in Mathematical Sciences MathEd Forum invites submissions of creative works that address the question:

***What would the world be like if the Normal Curve had never been discovered?***

Prizes include: \$2000 Grand Prize, and three Youth Prizes of \$500 each.

To submit a story, video, or other creative work, and for contest information visit:

<http://tamingofchance.vretta.com/>

## Math Ed in the Media

A few recent stories:

[How much are massive U.S. textbook companies driving Alberta's discovery math agenda?](#)

[Corporate Sponsorship Can Hurt Higher Education](#)

[The experts have spoken: Discovery math needs to make way for standard arithmetic](#)

[The problem with math](#)

# MEMBERS' ACTIVITIES / ACTIVITÉS DES MEMBERS

## False Alarm Raises Suspicion

By Dave Wagner

*Note- I submitted this short essay to the Globe and Mail to comment on the response to PISA results in December 2013. The Globe and Mail explicitly requests such essays to be argumentative. So I tried for a tone more argumentative than usual for me. They did not publish it.*

Today is the one-week anniversary of the release of the OECD's international comparison of student assessment (PISA). For a few days, our news was dominated by alarmist calls for reform in education -- especially calls for 'back to the basics' in mathematics.

The Canadian Council of Chief Executives (CCCE) started the hysteria claiming that Canada's PISA results are a "national emergency" and that our poor results show we need to return to traditional forms of teaching math. Later in the week, the CCCE removed its alarmist news release from its website, but not before setting off waves of panic expressed in phone-in radio shows and news reports.

Be aware. This was a false alarm. In fact, careful reading of the OECD report shows no significant difference between Canada's results in 2012 and the last PISA report in 2009. We are still ranked among the highest performers.

Canada is singled out only twice in the international results document, *PISA 2012 Results in Focus*. First, the report identifies Canada among the countries that demonstrate "high levels of performance with equity in education opportunities" (p. 12). This means that we do a relatively good job educating all our children. In Canada, Finland, and Hong Kong, equity does not come at the expense of quality. Second, Canada is praised for having more teachers who present students "with problems that require them to think for an extended time" (p. 22). This is the opposite of the alarmist claim in the CCCE news release. The OECD report does not suggest a return to "traditional" math teaching.

Today I raise a new alarm. Last week, our business leaders demonstrated irresponsible and poor mathematics. The many Canadians who parroted the CCCE's paranoid call for back-to-the basics demonstrate similarly poor statistical literacy.

Metaphorically speaking, we may be at the top of the class, but it is a class full of idiots. Let me explain. The PISA results make Canada look good internationally. Ironically, our nation's response last week exposes us for being poor mathematical citizens. We do not know how to read statistics and we are not equipped to think critically about "expert" reports on statistics. The PISA results position Canada at the top for sustained mathematical thinking (which is related to critical thinking), yet our response to the PISA report shows that we have a long way to go. We do not understand statistics and we do not know how to question self-proclaimed experts.

When fire alarms ring, it is reasonable to flee to safety. When we get the all clear, it is responsible to ask, who pulled the alarm and why? Did someone pull the alarm to distract us? Did they use this cheap trick to empty the building for some nefarious purpose? It is worth asking what the CCCE is trying to distract us from. How do business executives benefit from a panicked public? More likely the CCCE and others are doing what is too often done in public discourse. They use any excuse they can to proclaim their agenda as the solution to the problem.

I am raising an alarm, and I am saying we should be cautious when people raise alarms. Which alarm is real and which is false? Who should you believe -- me or the Canada-is-falling, back-to-the-basics, alarmists? If you know how to decide which is real, thank your teachers for your good education. Thank all your teachers, including your parents, your schoolteachers, your colleagues, your friends, and your press.

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Dr. David Wagner is a mathematics educator and Associate Dean in the Faculty of Education at the University of New Brunswick

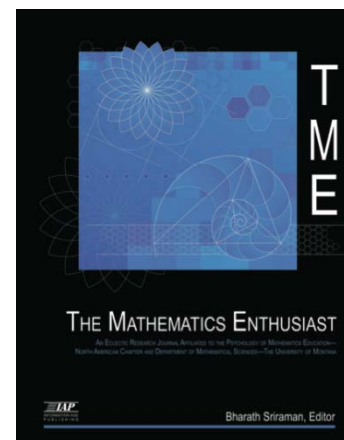
*Editor's note- we're all listening Dave, but the alarmists seem to have the ear of everyone else. Maybe we should be grateful? Without them, we might not even know there was a war to be fought #MathDoublethink*

## Call for Papers

Special Issue of *The Mathematics Enthusiast* on:

### **Risk – Mathematical or Otherwise**

'Risk' is an established domain of research in various academic disciplines (e.g., mathematics, statistics, probability, economics, engineering, political science, business, earth science, health science, computer science, psychology, sociology, and law). Currently, however, risk is not (aside from notable exceptions) similarly established in the field of mathematics education. Recognizing that (1) risk can be defined in numerous ways; (2) risk is an interdisciplinary domain of research; (3) the field of mathematics education, historically, has drawn upon research from other academic disciplines; and (4) *The Mathematics Enthusiast* is eclectic in nature, this special issue aims to cement risk as an established domain of research in mathematics education (and other academic disciplines). To achieve this goal, this call for papers invites individuals from various academic disciplines – especially those in the field of mathematics education – to submit articles for this broad-based, interdisciplinary special issue on risk, that is, 'Risk – Mathematical or Otherwise'.



At present, risk, in the field of mathematics education, tends to fall under the purview of research in the (interrelated) domains of probability, statistics, and psychology. Further, as detailed in a recent title in the "Advances in Mathematics Education" series, *Probabilistic Thinking: Presenting Plural Perspectives*, we sit at the dawn of a new era of research, an era that risk will help shape – perhaps even define. Given the former and the latter, this special issue aspires not only to further investigate established research threads pertaining to risk, but, also, to identify and investigate, that is, extend the purview, of risk research in the field of mathematics education and beyond. As such, the guest editor of this special issue, Egan J Chernoff, invites articles that present original work on a wide range of topics. Topics of interest include (but are not restricted to): risk assessment, analysis, perception, modeling, intelligence, communication, theory, and philosophy; the teaching and learning of risk (in various academic disciplines); social and cultural interpretations of risk; decision theory; uncertainty; and, *Risk: The Game of Strategic Conquest*. In particular, articles that incorporate risk with major areas of research in the field of mathematics education are especially welcomed. Ultimately, articles that address risk, mathematical or otherwise, will be entertained for this special issue.

Those individuals interested in contributing to this Special Issue of *The Mathematics Enthusiast*, Vol. 12, no. 1 & 2 (April 2015), 'Risk – Mathematical or Otherwise', are invited to respond to this open call for papers by submitting a 500 word abstract, including (1) a working title, (2) identification (i.e., names, affiliations, and email addresses) of all contributing authors, and (3) 5 to 10 keywords. Abstracts are to be forwarded (electronically) to Egan J Chernoff at [egan.chernoff@usask.ca](mailto:egan.chernoff@usask.ca) (or [egan.chernoff@gmail.com](mailto:egan.chernoff@gmail.com)) by (preferably prior to) August 15<sup>th</sup>, 2014. Abstracts will be considered and decisions made by August 31<sup>st</sup>, 2014 (or prior),

with full papers due November 1<sup>st</sup>, 2014. The Special Issue 12(1 & 2) will be published in April 2015. Please visit the journal website at <http://www.math.umat.ac.za/TMME/>.

Worthy of note, *The Mathematics Enthusiast* (a print and electronic journal) exists as an open access, independent entity, and allows authors to retain full copyright of their work. The aims and scope, and editorial information for *The Mathematics Enthusiast* can be found at the following link: [http://www.math.umat.ac.za/tmme/vol10no3/Edboardlistandjournalinfo\\_vol10no3\\_2013.pdf](http://www.math.umat.ac.za/tmme/vol10no3/Edboardlistandjournalinfo_vol10no3_2013.pdf).

In order to facilitate consistency when distributing this call for papers through various social media platforms, please use the following hashtag: #TMERiskSI.

Egan J Chernoff

## NEWS FROM THE EXECUTIVE / DES NOUVELLES DE L'EXÉCUTIF

### Report of the Nominations / Elections Committee 2014

Regular members were invited to participate in the election for the CMESG/GCEDM Executive and for the FLM Board of Directors. 56 of the regular members voted in the 2014 Elections.

Here are the results and the terms of office of our elected members:

Olive Chapman (acclamation), president of CMESG/GCEDM, 2014-2014

Caroline LaJoie, member of the executive of CMESG/GCEDM, 2014-2016

France Caron, member of the Board of Directors for FLM, 2014-2018

Ami Mamolo, member of the Board of Directors for FLM, 2014-2018

Congratulations to the newly elected CMESG/GCEDM Executive members and the member of the Board of Directors for FLM. Sincere thanks to those members who let their names stand for election. Our organization was very fortunate to have a strong list of nominees for the elections this year.

The members of the CMESG/GCEDM Nominations & Election Committee are Elaine Simmt, Chair, ([esimmt@ualberta.ca](mailto:esimmt@ualberta.ca)) and Laurent Theis ([Laurent.Theis@USherbrooke.ca](mailto:Laurent.Theis@USherbrooke.ca)).

### Rapport du comité de nomination / sélection du GCEDM 2014

Les membres réguliers ont été invités à participer aux élections pour le comité exécutif du GCEDM/CMESG et pour le conseil d'administration de FLM. 56 de nos membres réguliers ont marqué leur bulletin de vote.

Voici les résultats du scrutin et les mandats de nos membres élus:

Olive Chapman (par acclamation), présidente du GCEDM/CMESG, 2014-2016

Caroline LaJoie, membre du comité exécutif du GCEDM/CMESG, 2014-2016

France Caron, membre du conseil d'administration de FLM, 2016-2018

Ami Mamolo, membre du conseil d'administration de FLM, 2016-2018

Félicitations à nos membres élus. Nous remercions sincèrement tous ceux et celles qui ont bien voulu briguer les suffrages. Nous sommes très heureux de compter autant de membres qui veulent participer au sein de notre organisation.

Les membres du comité de nomination/sélection du GCEDM/CMESG sont Elaine Simmt ([esimmt@ualberta.ca](mailto:esimmt@ualberta.ca)) et Laurent Theis ([Laurent.Theis@USherbrooke.ca](mailto:Laurent.Theis@USherbrooke.ca)).

## CMESG Editors / Les Éditeurs du GCEDM

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**webpage editor / responsable du site sur l'hypertoile:** Chantal Buteau ([cbuteau@brocku.ca](mailto:cbuteau@brocku.ca))  
**newsletter editor / l'éditeur du bulletin :** Ami Mamolo ([ami.mamolo@uoit.ca](mailto:ami.mamolo@uoit.ca))

## CMESG EXECUTIVE / L'EXÉCUTIF DU GCEDM

The members of the executive extend an invitation to you to contact us about any item of interest. If you have something you want to suggest, if you have a concern you wish to raise, if you want more information, etc., please let one of us know. In order to be of service to the membership, we need to be aware of what your interests are.

Les membres du Comité exécutif vous invitent à leur faire part de votre point de vue concernant n'importe quel aspect de la vie du GCEDM. Que ce soit pour transmettre suggestions ou commentaires, ou encore pour être mieux informé, n'hésitez pas à entrer en contact avec l'un d'entre nous. En nous faisant connaître vos intérêts, vous nous aidez à mieux vous servir.

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