

Welcome to the September Issue of the CMS Notes

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Teaching Evaluations

Cover Article

September 2022 (Vol. 54, No. 4)

Dr. Liam Watson (University of British Columbia)
Vice President-Pacific

I recently received a scathing teaching evaluation.

I could leave it at that; nothing much to say here, really. I have received relatively few negative reviews on my teaching, on the whole, and I recognize that I occupy a space of privilege on this front—there is a growing body of evidence suggesting teaching evaluations in their current form have a built-in bias against underrepresented groups [1].

And, questions of unconscious bias aside, I get it. Students are under increasing stress along many axes. If we give them one place to vent, at the end of a term, we can be sure to hear from the disgruntled. In fact as institutions moved from paper to online evaluations, the general thinking [2] seemed to be that the averages should stay roughly the same even though the number of total responses would decrease—the very pleased and the very upset would not stop taking the time to evaluate professors. I suppose if I never saw a single negative review, I'd have to wonder if something was amiss.

Also, there is a lot of support available to me among my colleagues and peers, through which I can easily—indeed am encouraged to!—ignore any bad press. We know what we are doing, right?

But all of this said, here is a student that went to great lengths to describe their issues with my class, and even after it becomes clear that there was a mismatch between this student's expectations and the course I envisioned and delivered, I feel that there is something to learn from an evaluation like this. We did ask for comments, after all.

“Learning goals” is a term that has come up more and more in my career. In mathematical terms, I believe that these are meant to convey the list of topics—definitions and theorems—students should expect to be familiar with (and, I suppose, tested on) should they complete a given course. The intention here is to set expectations. And reflecting on this, it would seem the expectations are what is key here. I have expectations as an instructor; students certainly have expectations having paid tuition. But, even if a list of learning goals has been provided, have I communicated my expectations of students, in my courses, effectively? I suspect not [3].

I contend that more inclusive teaching spaces might result from better articulation of expectations—what we expect of students and, crucially, what they can and cannot expect from a class they have enrolled in.

Here I want to be very careful not to identify the class, and hence the pool of students from which this evaluation originated. But it is helpful for my purposes to work through an example, suitably abstracted. Not to nit pick, but rather to think about expectations and inclusivity.

Here is the example: One complaint was that I introduced X in one lecture, but then never returned to the construction of X in later lectures. The student clearly identifies X, and they are absolutely right—I did not come back to its construction. The aim was to provide a motivating example drawn from outside the course. And in fact, one might even argue it was drawn from outside of math, given a suitably narrow definition of math. The purpose of the example was to illustrate a transition from technique A to technique B and the example was not important, really. What was important was the fact that technique A was useless for studying certain natural phenomena, suggesting that another approach might bear fruit, which would in-turn (hopefully) motivate the further heavy lifting required in order to set technique B on firm footing. It is worth noting that the two techniques really look similar at the outset, with the exception that technique B requires strictly more work, so it is not hard to imagine a student questioning whether the added work is worth the trouble to begin with. Indeed, for the techniques in question, I have heard this complaint from students.

Evidently, this was not what the student in question took away from what was meant to be a stand-alone lecture. Could I have been more clear? I am sure that I could have, but to this end, what might have gotten in the way of missing this key point? Without attempting to guess, it is easy to imagine a wide range of issues getting in the way when two people attempt to communicate. But it could just as well stem from a rigidity of ideas

about “what math is” garnered over time through no real fault on the student’s part beyond the classes taken to that point. Overall, I am compelled to read this evaluation as coming from a strong student who has equally strong views on the structure of a good math lecture.

But this mismatch seems like a bad reason to give up.

We should strive to make our classes as diverse as possible in as many ways as possible: in addition to endeavouring to make anyone motivated enough to take a course feel welcome, we might *also* create an inclusive environment by demonstrating an inclusive attitude towards our material. For example, there is a place for stepping back and trying to view the bigger picture; just as there is a time to dive into the details in a careful didactic manner. I can remember being equally frustrated with courses that never gave any details at all as much as with courses that never stopped to think about what it was we were trying to accomplish. It is also the case that, listening closely to how students talk about their mathematical preferences, you often hear that they “like area such-and-such, which is the very best sort of math”. Everyone has different mathematical tastes, and that is a good thing—but it seems likely that silos are maintained by subtle choices we make in how new material is presented to students. And, compounding this, the ill-placed use of jargon or a machinery-heavy choice of motivating example can make the bar for entering a given sub-discipline unnecessarily high. If diversity begets diversity, then surely we should endeavour to give courses that show how broad math is, and how many interconnections there are between the diverse range of sub-disciplines, in a way that is accessible to as many students as possible.

Ultimately, we want our classes to include motivated students from as wide a range of backgrounds as possible—personal experience suggests that this leads, at the very least, to livelier and more engaged discussion. So I am left to conclude that I do not have the problem of working out how to make *all* students happy *all* of the time, but rather clearly communicating (and, likely, repeating myself often) just what it is that each and every student is getting themselves into here. To achieve this, perhaps more is needed than a simple set of new strategies that I can draw on for communicating *my* expectations in courses that I am responsible for. It may be that, towards more inclusive and diverse environments in mathematics, a more profound cultural shift is necessary. One that reflects on the boundaries, visible and invisible, that exist within mathematics as a whole and between mathematical sub-disciplines; one that makes clear from early in a sequence of math courses that there are a lot of ways to think about and communicate new ideas.

The ideas expressed and editorial choices made in this piece are those of the author, though many people read and gave valuable advice on drafts of this reflection: Erin Despard, Dagan Karp, Tye Lidman, Robin Wilson

1. I was aware of this fact in a colloquial sense but I was completely blown away when I saw the volume of research that an internet search returned. I am not particularly interested—for the purpose of reflection here—in whether we should do away with evaluations altogether. Suffice to say, there is a strong case for doing so.

2. Here I am thinking solely of things I heard said assuaging seemingly reasonable concerns from colleagues that online evaluations would be significantly more useless than paper ones because of an expected drop the student response rate.

3. I have tried, obviously, but here is a great example of what does not work: A professor in Tennessee gave instructions in his course syllabus to finding a \$50 bill hidden in a locker. Nobody collected the money; nobody reads the syllabus. It is easy to find this story online, but I cannot help including the link to the As It Happens story on the experiment: <https://www.cbc.ca/radio/asithappens/as-it-happens-the-monday-edition-1.6284012/this-prof-hid-50-in-a-locker-to-see-if-his-students-read-his-syllabus-nobody-found-it-1.6284015>

“Ah, why, ye Gods...”

Editorial

September 2022 (Vol. 54, No. 4)

Robert Dawson (Saint Mary's University)
Editor-in-Chief, CMS Notes

“Ah, why, ye Gods, should two and two make four?” asked Alexander Pope in Book 2 of his *Dunciad*. Sadly, it appears that many governments are starting to wonder the same thing about the simple mathematics of the COVID-19 pandemic; and, indeed, there are signs that they have decided among themselves that perhaps two and two need *not* make four unless it's convenient.

For a long time, Canada – and the Atlantic Provinces in particular – did rather well in acting as if the simple mathematical models that we teach in a first differential equations course—or even second-term calculus if there's time—meant what they say. If a person with a disease has a certain probability of passing it on, and a certain probability of dying from it, we can construct an approximate model of the outcome. And, even though we know reality to be more complicated, it should be clear to us that unless one parameter has the value zero, lowering either one will save lives. Back in 2020, faced with a few deaths per million per week, and with frighteningly little control over the case fatality rate, we worked hard to keep transmission rates low. We wore masks, we isolated (by law), and most of us got vaccinated when we could. Our governments made us partners in the process by sharing data and encouraging us to get tested frequently. And, as a result, Canadian death rates were, for the most part, enviably low.

Now, to check that a class has understood the lesson, we sometimes ask them to work the same problem with new parameters. The Omicron variant, in conjunction with widespread vaccination, has decreased the case fatality rate significantly. But it's far, far more transmissible. Case counts at the beginning of this year were five times as high as at the peak of early waves; and death rates were comparable to those earlier waves. Unlike other waves, this one has not ended, though it has dropped: we are still seeing about five COVID-related deaths per million per week—in the middle of summer. This is about five times what we were seeing in the summers of 2020 and 2021, and COVID-19 has so far been seasonal. Clearly the same precautions are still needed—or thousands more may die this winter.

But what have the reactions of our various governments been? Testing has been scaled back, information is becoming harder to get, and in most places there's no longer an isolation mandate or mask mandate. Which is a polite way of saying that it's now completely legal, if you have COVID-19, to go into a crowded public place and knowingly spread it to others; and even responsible people have an increased chance of passing the virus on unwittingly.

Will the governments bring back the rules that saved so many lives in recent years? It doesn't look likely. However, it was recently announced that Saint Francis Xavier University will be requiring masks in the fall, when their students reconvene on campus from all over the country and the world. Perhaps those of us who work at other universities can encourage our employers to do the same? If not, we had better have our materials in place for online teaching when the next big wave hits.

The Original Sources of Some Common Quotations

CSHPM Notes

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Michael Molinsky (University of Maine at Farmington)

Michael Molinsky is a Professor of Mathematics at the University of Maine at Farmington. He also currently serves as an Associate Editor for [Convergence](#), established in 2004 as the Mathematical Association of America's online, open-access journal for the history of mathematics and its use in teaching.

I have always been interested in quotations, but it was not until the start of my academic career that I began to think about their sources. In particular, I noticed that works intended for a general audience tended to offer quotations without providing any information on the source of the quotation; or, if a source was provided, it was often a recently published secondary source that gave no real information on the true origin.

In my youth, tracking down original sources would have been much more challenging. But thanks to books and journals available through my campus library or through interlibrary loan, academic databases such as JSTOR, and the many digital archives freely available to the public today, even someone like myself at a small college in a rural area can locate and examine a wide range of important historical materials. In 2006, I began writing a column for the *CSHPM Bulletin*, our society's biannual newsletter, called "Quotations in Context," which presents information on original sources of selected quotations. Writing the column has been a very educational experience for me, and I have been surprised by the variety of outcomes of my investigations. In some cases, so-called quotations have turned out to be—at best—paraphrased material, in which the rewording sometimes provides a meaning very different from that intended by the original author. The tendency to rely on secondary sources has meant that a misattribution of a quotation in a single source will often continue to spread throughout other publications. Even when quotations are accurately stated and attributed, looking at the original context of a statement can provide interesting and insightful information. Not every investigation has been a success, and I have certainly found myself, either from limited knowledge of the relevant language or from lack of resources, unable to complete my search for an original source; nonetheless, I still very much enjoy doing the research and plan to continue these explorations well into the future.

This column will briefly examine three related quotations, tracing each back as far as possible in history. While the sources of these quotations are certainly well known to modern scholars, and descriptions of the sources can be found in recent academic publications aimed at specialized audiences, popular resources on the internet or in print intended for students, teachers, or a more general audience almost always fail to identify their origins (and, as noted below, frequently misidentify one of the authors).

"God ever geometrizes"

One of the works of the Greek historian [Plutarch](#) (ca 46–ca 119) was *Table Talk* (*Quaestiones Convivales*), which appears in the collection *Moralia* of his miscellaneous works. *Table Talk* contains a sequence of conversations, each focused on an organizing question or topic. One such conversation begins with the Greek grammarian Diogenianus:

Silence following this discourse, Diogenianus began and said: Since our discourse is about the Gods, shall we, especially on his own birthday, admit Plato to the conference, and enquire upon what account he says (supposing it to be his sentence) that God always plays the geometer? I said that this sentence was not plainly set down in any of his books; yet there are good arguments that it is his, and it is very much like his expression [4, p. 402].

Plutarch's *Table Talk* was obviously written over four hundred years after the death of the Greek philosopher [Plato](#) (ca 423–ca 348 BCE), and the portion of the dialogue above makes clear that the phrase does not come from any of Plato's written works. The closest Plato appears to come to the statement "God ever geometrizes" is in the following excerpt from the dialogue *Timaeus*:

Before that time, in truth, all these things were in a state devoid of reason or measure, but when the work of setting in order this Universe was being undertaken, fire and water and earth and air, although possessing some traces of their own nature, were yet so disposed as

everything is likely to be in the absence of God; and inasmuch as this was then their natural condition, God began by first marking them out into shapes by means of forms and numbers [5, p. 53].

While we may lack a primary source for the quotation, it is indeed “very much like his expression” and therefore it is not entirely unreasonable to assign the quotation to Plato.

“God ever arithmetizes”

Today, this quotation is commonly misattributed to the German mathematician [Carl Jacobi](#) (1804–1851). The source of this error appears to be the Scottish-American mathematician and writer [Eric Temple Bell](#) (1883–1960), who ascribed the quotation to Jacobi in many of his works, with the earliest such reference appearing in the book *Numerology*, published in 1933 [1, p. 17].

The actual source of the quotation appears to be the German mathematician [Carl Friedrich Gauss](#) (1777–1855), although, as with the previous quotation, the phrase “God ever arithmetizes” never actually appeared in any of Gauss’s writings. But in this case, we have witnesses who knew Gauss quite well and could personally attest that he originated the phrase. One such witness is the German geologist [Wolfgang Sartorius von Waltershausen](#) (1809–1876), who worked alongside Gauss at the University of Göttingen for nearly three decades. Waltershausen addressed the quotation in his biography, *Gauss: A Memorial (Gauss zum Gedächtniss)*, published in 1856. The relevant paragraph is shown below, together with an English translation from Helen Worthington Gauss, the mathematician’s great-granddaughter:

Unter Wissenschaft verstand er allein jenes streng in sich abgeschlossene logische Gebäude, dessen Fundamente auf gewissen vom menschlichen Geist allgemein anerkannten Wahrheiten beruhe, die ein Mal zugegeben ein unabsehbares Feld der verwickeltsten durch eine eiserne Gedankenkette mit einander zusammenhängenden Forschungen gestatte. Er stellte daher wie schon bemerkt die Arithmetik an die Spitze und pflegte in Bezug auf Fragen die für uns wissenschaftlich nicht zu ergründen sind die Worte zu gebrauchen: Ὁ Θεὸς ἀριθμεῖ, womit er die durchs ganze Weltall gehende Logik auch für solche Gebiete anerkannte, in welche einzudringen unserm Geiste nicht verstattet ist [6, pp. 97–98].

Under science he understood that logical, strictly unique structure of which the foundations rest on certain truths universally recognized by the human mind. This once admitted provides an immeasurably wide field for the most complicated investigations strung together on an iron chain of thought. He therefore, as already noted, gave to mathematics the topmost place, and when it came to questions which could not be scientifically resolved he used to say “God arithmetizes,” thus acknowledging those fields into which our minds are not permitted to penetrate [7, p. 81].



Figure 1. Carl Jacobi. [Convergence Portrait Gallery](#).



Figure 2. Carl Friedrich Gauss. [Convergence Portrait Gallery](#).

“Man ever arithmetizes”

Unlike the two previous examples, we can find this quotation in a publication by its author. In 1888, the German mathematician [Richard Dedekind](#) (1831–1916) published *What Are Numbers and What Should They Be?* (*Was sind und was sollen die Zahlen?*), a short work which includes axiomatic set theory and other foundational topics in arithmetic. While the majority of the work is written in German, the phrase “Man ever arithmetizes” appears in Greek on the title page, directly below the author’s name, as well as in the preface. The relevant paragraph of the preface is shown below, in the original languages and in an English translation:

In diesem Sinne, den ich durch die, einem bekannten Spruche nachgebildeten Worte ἀεὶ ὁ ἄνθρωπος ἀριθμητίζει bereidne, mögen die folgenden Blätter als ein Versuch, die Wissenschaft der Zahlen auf einheitlicher Grundlage zu errichten, wohlwollende Aufnahme finden, und mögen sie andere Mathematiker dazu anregen, die langen Reihen von Schlüssen auf ein bescheideneres, angenehmeres Maß zurückzuführen [2, p. x].

In this sense, which I express by words formed after a well-known saying ‘humanity always arithmetizes’, I hope that the following pages, as an attempt to establish the science of numbers upon a uniform foundation, will find a generous welcome, and that other mathematicians will be led to reduce the long series of inferences to more moderate and attractive proportions [3, p. 792].

Dedekind’s remark that the motto is “formed after a well-known saying” suggests that he took his inspiration from the phrase attributed to Gauss, although he may also have been aware of the earlier version attributed to Plato.



Figure 3. Richard Dedekind. [Convergence Portrait Gallery](#).

As these three examples hopefully show, there is much to be gained by examining the original sources of the quotations we circulate in the modern world. Perhaps the next time you run across a familiar quotation, you may find it rewarding to spend a bit of time tracking down its origins.

References

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Tara Taylor (St. Francis Xavier University)

I believe that research and teaching are interconnected. I've been fortunate to be part of a research collaboration that has greatly enriched my teaching in diverse and surprising ways. I wanted to share this to encourage others to be open to collaborations outside of their main research interests.

In 2012, I was asked to join the research group *MathWeave*, by Dr. Eva Knoll (formerly of MSVU, now at UQAM). Eva's work ranges over many areas including math education and connections between math and art. She was working with a master weaver, Wendy Landry. They asked me to join in the role of "mathematician". I initially thought that I would be able to provide a mathematical lens to analyze their work. I had no idea how much I would learn from our research collaborations. Our group grew to include other members (an elementary school math and art teacher and a librarian with a math background). According to the group website (<http://mathweave.teknollogy.com/>), our work is focused on the question "Is there a 'Making Way' to show or learn mathematical concepts, skills and procedures by engaging with the struggle that is making art?" This includes the creation of a range of artefacts that involve mathematical thinking, research papers discussing the math and art connections we work with, development of curriculum materials for many different levels, workshops and presentations for different audiences (math and/or art conferences, math and/or art teachers), and outreach activities to various community groups like Girl Guides.

For example, consider the series of artefacts in Figure 1. Eva created these artefacts inspired by plaited mats produced in Southeast Asia. Mats can take advantage of two kinds of decorative effects. The first one involves patterns of in-woven holes in the surface. The second one involves patterns incorporating colours. Eva showed me this series and I was intrigued by the mathematics underlying the colour choices. There are 14 distinct strips in each artefact. Colour is one way to convey equivalence of strips, and we can use different definitions of equivalence. At one extreme, the strips all have the same colour. At the other extreme, the strips are all distinct. Figure 1(b) displays an artefact where the equivalence is based on which region of the artefact the strip travels. In Figure 1(c), the equivalence is based on which paths are isometric. I think the artefacts are beautiful by themselves but even more so as a series. Different equivalences can help to see different mathematical aspects.



Figure 1: Series of Open Squares

The use of colour is an important consideration for the creation of art. I have found it helpful to incorporate colour in different ways to help students understand mathematical concepts. We want our students to see relationships and patterns. I often teach abstract algebra, and the symmetries of the square is one of the main examples that we see throughout the course. There are 8 symmetries of the square (the identity, 3 rotations, 4 reflections). The corresponding binary table is in Figure 2. The colour helps the students make observations about the structure of the group.

*	a	b	c	d	e	f	g	h
a	a	b	c	d	e	f	g	h
b	b	c	d	a	g	h	f	e
c	c	d	a	b	f	e	h	g
d	d	a	b	c	g	h	e	f
e	e	h	f	g	a	c	d	b
f	f	g	e	h	c	a	b	d
g	g	e	h	f	b	d	a	c
h	h	f	g	e	d	b	c	a

Figure 2: Binary table for the Symmetries of the Square

The symmetries of the square is a subgroup of the group of permutations on 4 elements. We presented a workshop on another subgroup of the permutations on 4 elements at a math and art conference. This workshop included different ways to experience the subgroup- through music, poetry, visual art and culinary art. The corresponding paper is available at <https://archive.bridgesmathart.org/2018/bridges2018-659.html>.

The actual act of making art has deepened my own mathematical understanding of different concepts, so I try to bring more hands-on activities into my classes. I introduce topology in a first year math concepts class. In the first few years I taught the course, I would tell the students the joke about how a topologist can't tell the difference between a donut and a coffee cup. Now I have an assignment that has a component that requires the students to make a donut out of play-doh and transform it to the coffee cup. The students take photos of the transformation and include the photos in their assignment. They generally love this assignment. I have heard students say that they don't usually get to do anything like that or that they haven't played with play-doh since they were kids. The photos are amusing too, which helps make the marking more fun.

I have learned a great deal about pedagogy from being in the group. One thing that was new to me is the idea of embodied cognition (using the whole body in the learning process). One example I have used is in the proof that the exterior angles of a convex polygon always add to 360. I expect the students to be able to prove it algebraically, but to also feel what it really means. They can use painters' tape to make big polygons on the floor and then walk around them. No matter how many sides there are, their body will do one complete rotation as they move around.

There are other ways that my teaching has benefitted from my involvement with *MathWeave*. I am a complete novice when it comes to weaving. I can get frustrated by how slow I am and how much of a struggle it can be. I had an epiphany about this though- it helps me to imagine what many of my students are going through when they are struggling with new concepts. In my first year math concepts class, they have a final project where they have to research a way to connect math to something they are interested in. Originally it had to be a paper. Then it could be a paper or poster. Over time, I've gotten more flexible in how the students present their projects (and the pandemic also forced me to be more creative). Some will create music or visual art. I've also noticed that the more artistic activities often show different strengths of students compared to what we typically assess. This helps the students see themselves and each other differently. It has also helped me to see many of them in a new light. Every year I am blown away by what they come up with. The *MathWeave* group continues to be a respectful community of learners, and that is one my goals when I am teaching- that the classroom is a community of learners where we can all contribute and we can all learn.

Two Digital Libraries

Book Reviews

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Karl Dilcher (Dalhousie University)

Book Reviews bring interesting mathematical sciences and education publications drawn from across the entire spectrum of mathematics to the attention of the CMS readership. Comments, suggestions, and submissions are welcome.

Two Digital Libraries Reviewed by Karl Dilcher

Book reviews are usually about new publications, which of course makes sense. In this issue, however, I'd like to do something quite different: not just write about older books, but about *very* old books. In particular, I will present two web resources that deserve to be widely known; both of them are co-hosted and supported by our sister society, the Mathematical Association of America (MAA).

The Euler Archive

There is hardly any part of pure or applied mathematics that cannot be traced back to Leonhard Euler (1707—1783). He is widely considered the most prolific and one of the greatest mathematicians of all time. Fortunately, almost all his very numerous articles and books are freely available in one place, in the excellent Euler Archive (<http://eulerarchive.maa.org>) which bears the subtitle “A digital library dedicated to the work and life of Leonhard Euler”.



This web resource is best described by quoting from the text of its main page: “The Euler Archive is an online resource for Leonhard Euler’s original works and modern Euler scholarship. This dynamic library and database provides summaries of and access to digitized versions of original publications, and references to available translations and current research.

“The Archive is centered on individual web pages corresponding to (and containing information about) each work written by Leonhard Euler (more than 850 of them). Most pages also contain copies of the original publications of these works. These collected works exist on a Digital Commons platform at the University of the Pacific [...].

“The Euler Archive was created by Dominic Klyve (Central Washington University) and Lee Stemkoski (Adelphi University). It was hosted by Dartmouth College from 2003 to 2011, and by the MAA from 2011 to 2018. The site has been hosted jointly by the MAA and the University of the Pacific since 2018. It is currently managed by Erik Tou (University of Washington, Tacoma) and

Chris Goff (University of the Pacific).”

The Archive can be searched by subject, date written, publication source, and Eneström number, an enumeration named after the Swedish mathematician Gustav Eneström who, in 1913, completed a comprehensive survey of Euler’s work and enumerated 866 distinct items. Each entry in the Euler Archive comes with a title page containing complete bibliographic information, including the original language (mostly Latin), a helpful content summary in English and, of course, a download button for a scan of the original work.

The Archive also has a list of currently 207 publications which have been translated into a modern European language, often English; however, not all of these translations seem to be available for download. Particularly nice for those who know some Latin, or want to study mathematical Latin,

are side-by-side translations; one such translation is of E134, “[Theoremata circa divisores numerorum](#)”.

A separate list of Euler’s books can be found under “Publication Source” and then “Books and Pamphlets”. It includes the famous 2-volume “Introductio in analysin infinitorum” of 1748 (E101, E102), but also the less known “[Neue Grundsätze der Artillerie](#)” of 1745 (E77), or “Tentamen novae theoriae musicae”, published in 1739 (E33). The titles of these last two books, so different from what we usually consider Euler’s work, will need no translation.

Further content of the Euler Archive includes historical information with brief articles on 18th century Europe and on important locations in Euler’s life, brief paragraph-length biographical sketches of Euler’s most important contemporaries (not only mathematicians), and links to biographies and related information about Euler. The Archive’s final section, “Other Features”, includes the relatively new electronic *Euleriana Journal*; a page devoted to Euler’s correspondence, with many letters available for download; links to Ed Sandifer’s online MAA column *How Euler Did It*; and a useful page containing further reading on Euler’s work and on his life and times.

The Euler Archive is a fascinating resource that should be of interest to any mathematician. It will be particularly useful for historians of mathematics and for researchers who work in fields most strongly influenced by Euler, such as classical analysis, special functions, and elementary, analytic and combinatorial number theory.

The Euler Archive makes it easy to follow Laplace’s famous dictum, “*Lisez Euler, lisez Euler, c’est notre maître à tous.*”

“Convergence”, including “Mathematical Treasures”

While the Euler Archive is mostly devoted to a single author and is aimed towards historians and researchers, the purpose and format of *Convergence* (<https://www.maa.org/press/periodicals/convergence>) are quite different. To quote from its main page: “This MAA publication offers a wealth of resources to help you teach mathematics using its history.” In the first place, *Convergence* is an electronic journal, now in its 19th year, with interesting articles that are in line with this brief description.

What made me include *Convergence* in this Book Reviews column is the *Mathematical Treasures* column, edited by Frank J. Swetz. It is a growing collection of “[...] images of mathematical objects and of selected pages of mathematical manuscripts and texts from various libraries, museums, and private collections.” Indeed, the general index contains links to several hundred items, in alphabetical order by author, from Abel to Zubler. Many of the authors have multiple items listed; not surprisingly, the author with the most entries is Anonymous, with over 70 items, from 20,000—25,000 years ago (the Ishango Bone) to ca. 1960 (an RCA Flowcharting template).

Other *Mathematical Treasures* include items as varied as a Cambodian stone inscription of an early zero as a placeholder, dated 683 CE, and a few pages from Émile Borel’s “*Éléments de la Théorie des Ensembles*”, published in 1949. All items are well presented, with high-quality scans or photographs, and are accompanied by historical notes which explain the significance of the book or other item in question.

In the case of books, typically a few key pages are given, with descriptions. Moreover, in some cases there are links to full texts of the books in question, either for viewing or for downloading through external web resources, such as Google Books, the Internet Archive, or resources listed in the *Mathematical Treasures* main page.



It is not surprising that very few women appear in the *Mathematical Treasures* index. One of them is Maria Gaetana Agnesi (1718—1799), now mainly known for a curve commonly called the *Witch of Agnesi*. This is an unfortunate mistranslation Agnesi’s description of a cubic curve she treated in her book “*Istituzioni analitiche ad uso della gioventù italiana*” (*Foundations of Analysis for the Use of Italian Youth*), published in 1748 in Italian and in 1801 in English translation by the Rev. John Colson. This book was actually one of the earliest treatments of calculus published on the European continent. Several pages from both the Italian and the English edition are reproduced in *Mathematical Treasures*, and the brief article accompanying the images tells the story of the translation and explains the mistranslation mentioned above.

This is just another example of the many real treasures that can be found in *Convergence*. This excellent resource is well worth exploring, and the many images with the accompanying facts and stories will indeed be great resources for the classroom or for student projects.

Importance of Personal Stories in the Context of Inclusion and Diversity in Math and STEM



MOSAIC

September 2022 (Vol. 54, No. 4)

Maiko Serizawa (University of Ottawa)

Introduction

Nowadays, the term EDI is something we hear very often in our academic workspaces, and in fact, it is explicitly mentioned in the official policy documents of more than 75% of Canadian universities according to an article of *University Affairs* published in November 2019.

Although these structural approaches provide us with a necessary foundation, I believe that we also need a cultural approach in order to realize a workspace in mathematics where each individual can experience a full sense of belonging and have a fulfilling work life. In this article, I am going to argue the power and significance of sharing personal stories within our work community and propose it as a tool to create a truly inclusive and diverse work environment.

My own experience as a math student

To share a little bit about myself, I completed my PhD in mathematics from University of Ottawa in April 2021. Before that, I obtained my MSc from University of Sheffield in England, and even before that, I was a college student in Tokyo, Japan. That's the country I'm originally from, and I also happen to be a female person.

Throughout my 11 years as a math student, I always found myself in the visible minority in the math workspace – at first, gender minority, then later, both gender and ethnic minority. One consequence of constantly being in the minority was that it was a norm of my student life and I rarely thought twice about it. Yes, I was the only female student in the room. Yes, all my professors were male. Yes, I was often the only student in the room who wasn't greeted by her classmates or her teacher. Yes, I felt awkward many times. But for a very long time, it never crossed my mind that these were things to be addressed.

In my final year of undergraduate study, I signed up for a directed reading module and every week I showed up to the seminar, working on my reading material under the guidance of my supervisor. According to the syllabus, I was supposed to write up a survey paper about things I learned in the reading module. But my supervisor never mentioned it to me, and I felt too shy to bring up the topic during the seminar. One day, about two weeks before the submission deadline, I suddenly got a message from my supervisor saying that since I wasn't working on a paper, he was going to give me a failing grade for this reading module. He asked me for my consent. The truth was that I was writing one, it was just that I hadn't felt confident enough to tell him about it. But I eventually showed him what I wrote, and thank goodness, it was of good quality and I passed the module with an A+.

Later, I told this episode to one of my family friends, who taught English literature at another university. As soon as I shared the story, she looked at me and said,

"Isn't that a case of academic harassment?"

It was my first time hearing such a term. I had already graduated, and I considered the incident to be water under the bridge. But looking back, the treatment I received was not appropriate and could have been viewed as a harassment case.

During my time as a master's student, I attended one weekly math seminar for graduate students and staff. I arrived early and the door was locked, and when a professor came from the other side of the corridor, I asked him if I was at the right room. He looked at me as if I were an alien and said,

"Yes. But I don't think you will get much out of it."

There was nobody else in the corridor, and only I heard this comment. I was too surprised to even respond. I just went into the room and attended the talk anyway, though the first 10 minutes of the talk were definitely ruined by my watery eyes. Here was another daily case of harassment.

Another consequence of constantly being in the minority was that I did not have anybody around me to talk about these sensitive incidents when they happened. And when I did not share my experiences with other beings, negative incidents were internalized within me. I believed that people would do and say those things to me because I was not as good as other students in terms of my mathematical capacity. I was physically quite lonely to begin with, but in this way, I became emotionally isolated as well, feeling invisible in my own workspace, which in turn greatly affected my mental health.

The uOttawa Women in Math Club: the impact of story sharing

In my second year of PhD at University of Ottawa, I learned about the newly established student group called the uOttawa Women in Math Club. It was a group founded by two undergraduate students, Alex McSween and Maria Elisabeth Schriemer, with the intention to connect women students and faculty members in mathematics. At the time, my life as a PhD student was still quite a lonely one, enduring subtly disturbing daily incidents as a minority math student and endlessly blaming myself for whatever was missing from me as a person to have a fulfilling journey with mathematics.

My perspective was changed forever when I joined the executive team of the uOttawa Women in Math Club and started working closely with other women math students. Together, we organized an annual Women in Math panel event, monthly speaker series, a book club, and in between we talked about our daily student life. It made me realize two things. First, I had never even had the chance to talk about daily stuff with my cohorts before. Second, there was a great sense of relief and connection in sharing what was happening in each other's student life and how we felt about it. We laughed together about funny incidents, expressed concerns and discussed possible solutions when somebody had a problem, and celebrated each other's wins.

Having realized the power of sincere conversations, in my second year in the Club, I hosted a biweekly teatime event called Tea Chat. In each session, we chose a conversation theme and talked about it over tea and snacks. The themes varied from the sense of isolation we felt within the community to what inspired us onto the journey of mathematics. The event became popular among the women students both in undergraduate and graduate programs, and I heard from quite a few participants how the conversations at Tea Chat had helped them to feel that they were not alone in the journey and keep a healthy view when faced with a tricky situation at work.

I personally attribute a great part of my successful completion of PhD to my participation in the Women in Math Club. The presence of the cohorts I met in the Club was what made me feel *seen* in my otherwise estranged workspace and constantly reminded me that I was both a capable and valuable person who deserved to succeed in her study just like anybody else.



Figure 1: The International Women's Day Panel, March 2020



Figure 2: Being able to share my wins and struggles with other women math students saved my life as a PhD student



Figure 3: The popular biweekly event Tea Chat was a place to talk about vulnerable topic over tea and snacks

Encounter with “Truth Values” and its first Canadian Tour

In April 2021, just when I was finishing my PhD, I was led to a talk by Gioia De Cari, a New York-based artist and ‘Recovering Mathematician’, at one of the AWM (Association for Women in Mathematics) speaker series. It was a story of her personal journey – how she was once a graduate math student at MIT, how she suddenly decided to leave math and seek a career in the arts, how she promised herself never to talk about math again, and how after many turns of events she was led to create an autobiographical play “Truth Values” which depicts the life of a female math graduate student with a deep observation and a touch of humour.

In her talk, Gioia mentioned how the play “Truth Values” had toured around universities in the United States and how it had transformed the local STEM community by initiating an honest conversation around the topic of inclusion and diversity at STEM workplace. And I thought to myself – “I want to host this play in Ottawa!”

With my pounding heart, I went to Truth Values’ official website, clicked on “Book a Tour” and wrote that we would love to host a performance of Truth Values at the University of Ottawa. A few weeks later, I heard back from Gioia herself – she was thrilled to talk about the possibility of the play’s tour to Ottawa. “The play had never toured outside of the States,” she said. “It would be wonderful to finally cross the border and deliver the show to the Canadian audience!”

To this day, I am indebted to Gioia’s unusual courage to decide to trust me and my team of colleagues, who had no prior experience of hosting a show, to work together to bring “Truth Values” to Ottawa.

The fundraising journey was a challenging one. At first, many people at the University of Ottawa we approached did not think it was possible to raise such a big amount of money. The reason for such a passive response was probably because “Truth Values” was not yet well-known in Canada and it’s not a usual practice to invite a theatre performance as part of an EDI project. However, we slowly found our sponsors, starting from the NSERC Chair for Women in Science and Engineering, CAIMS, and the Fields Institute. This year, two more universities joined the “Truth Values” first Canadian Tour: the University of Toronto and the University of Waterloo. As the momentum grew, our fundraising journey also took off, and in June 2022, we finally signed the contract with the theatre company.

“Truth Values” will come to the University of Ottawa on 15th-17th September 2022, with three performances each followed by a post-show panel discussion. Visit [our event website](#) for more details. You can find the tour schedule [here](#) as well. If you live nearby, you are warmly invited to join this epic EDI event in mathematics and STEM!

One unique aspect of “Truth Values” as an EDI initiative is that it allows us to look at the topic through a person’s personal stories rather than data. By watching the play, you are bound to reflect upon your own journey and think about what is *your* experience with inclusion and diversity. It will be a great place to start discovering each other’s unique stories and together envisioning a better workspace for all the community members.



Figure 4: Photo by Silvana Ximena, Performance of “Truth Values” by Gioia De Cari

Creating a safe space where our personal stories are shared and valued

I truly believe that the foundation of a fulfilling and successful work life – even in a theoretical subject as mathematics – is a sense of belonging in the community. As humans, we thrive when we feel our presence matters. Sharing our personal stories is the easiest yet most impactful way to nurture such mutual connection. I aspire to be a force that listens to each person’s personal stories and initiates a safe workspace where every mathematician can be acknowledged not just for their work but for who they are.

Acknowledgement

I thank the EDI Committee of the Canadian Mathematical Society and Professor Monica Nevins for giving me the opportunity to contribute my voice to this special column.

Call of Interest for CMS Committee Membership

Calls for Nominations

September 2022 (Vol. 54, No. 4)

Join a CMS Committee!

Call of Interest for CMS Committee Membership

The Canadian Mathematical Society Nominating Committee invites expressions of interest in membership on the following committees. CMS committee members must hold CMS membership, however applicants need not be current members. Terms commence on January 1, 2023 and run for 3 years.

Current and upcoming committee vacancies

- Equity, Diversity and Inclusion Committee: 3 vacancies
- Human Rights: 4 vacancies
- International Affairs: 2 vacancies
- International Prize: 5 vacancies
- Invested Funds: 1 vacancy
- Publications: 1 vacancy
- Reconciliation in Mathematics: 1 vacancy (Quebec)
- Research: 3 vacancies
- Women In Mathematics: 3 vacancies (West, Quebec, East)

Terms of Reference for each committee can be found [here](#).

How to express interest

Please send a Letter of Interest to chair-nomc@cms.math.ca with the following information:

1. Your name
2. Your career stage
3. Current university or institutional affiliation
4. Name of committee(s) you wish to join
5. Expression of interest in the particular committee(s): Why you want to be on this committee, or what you would do on this committee (this can be brief if you have a clear vision, or longer if need be.)
6. For International Affairs, Publications and Research, please also indicate your research domain

Applicants are encouraged to self-identify. The information will be used by the Nominating Committee to ensure committees are diverse in their representation. The information may also be used in aggregate to report on CMS equity, diversity and inclusion initiatives. The information provided will be kept confidential.

Please submit your letter no later than November 18, 2022.

Who should apply

We encourage everyone to consider becoming an engaged member of a CMS committee, however, we particularly welcome people who have not previously served with the CMS, or identify with, are connected to, or have experience with historically excluded groups:

- Racialized, Black, and/or People of Colour (“Visible Minorities”)
- People with disabilities (including invisible and episodic disabilities)
- 2SLGBTQIA+ and/or gender and sexually diverse individuals
- “Aboriginal” and/or Indigenous Peoples (First Nation Peoples, Métis Nation, and Inuit)

- Women

If you are excited about participating in CMS activities but you aren't sure if your past experiences align perfectly with a given role/committee, the Nominating Committee encourages you to express your interest.

Determination of membership

Every committee of the CMS operates under its own [Terms of Reference \(TOR\)](#). The Nominating Committee will take into account the current composition of each committee and its TOR when selecting persons for nomination. Once nominated, approval is required by the CMS Executive and Board prior to appointment.

Feedback

Feedback on this new approach and suggestions on how to advance diverse representation on CMS committees are welcomed. Please send comments and suggestions to: chair-nomc@cms.math.ca.

One final push

If you have ever wanted to be more involved with the CMS or you would like to champion a particular cause or activity, please submit a Letter of Interest in being a member of a CMS Committee. Sometimes people are hesitant to put themselves forward, or just need some encouragement or support, whether they are a student, post-doc or established veteran. If you know someone who would be a good fit for a CMS committee, please encourage them to submit a Letter of Interest. **Become involved to build a stronger mathematical community!**

Call for Nominations : 2023 Cathleen Synge Morawetz Prize

Calls for Nominations

September 2022 (Vol. 54, No. 4)

Nomination Information

Cathleen Synge Morawetz Prize

	<p>Nominations are currently welcomed for the 2023 Cathleen Synge Morawetz Prize.</p> <p>Deadline: September 30</p>
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The Cathleen Synge Morawetz Prize is for an author(s) of an outstanding research publication. A series of closely related publications can be considered if they are clearly connected and focused on the same topic. At least one author of any nominated paper should be part of the Canadian Mathematical community.

The Cathleen Synge Morawetz Prize will be awarded according to the following 6-year rotation of subject areas:

1. Geometry and Topology (2021, and every six years thereafter),
2. Combinatorics, Discrete mathematics, Logic and foundations, and Mathematical Aspects of Computer Science (2022, and every six years thereafter),
3. Applied mathematics, including but not limited to Numerical Analysis and Scientific Computing, Control Theory and Optimization, and Applications of Mathematics in Science and Technology (2023, and every six years thereafter),
4. Probability and Mathematical Physics (2024, and every six years thereafter),
5. Algebra, Number theory, Algebraic geometry (2025, and every six years thereafter),
6. Analysis and Dynamical systems (2026, and every six years thereafter).

All of the above fields will be understood most broadly, to ensure that any outstanding publication can be considered under at least one of the categories. A paper (or a series of papers) which has significantly impacted more than one of the listed fields can be nominated more than once in the six-year rotation. The nomination must focus on a single topic, rather than a broad body of work by the nominee.

This call for nominations is for an author(s) of a publication or a series of closely related publications in the field of Applied mathematics, including but not limited to Numerical Analysis and Scientific Computing, Control Theory and Optimization, and Applications of Mathematics in Science and Technology.

CMS aims to promote and celebrate diversity in the broadest sense. We strongly encourage department chairs and nominating committees to put forward nominations for outstanding colleagues for research in the mathematical sciences regardless of race, gender, ethnicity or sexual orientation.

The nomination letter should highlight the research paper(s) being nominated, providing evidence of its impact and significance. The nomination letter should list the chosen referees, and should include a recent curriculum vitae of the nominee(s), if available. Up to three reference letters in support of the nomination should be sent directly to the CMS.

All documents should be submitted electronically, preferably in PDF format and **no later than the deadline date above**, to csmprize@cms.math.ca.

Call for Nominations : 2023 Krieger-Nelson Prize

Calls for Nominations

September 2022 (Vol. 54, No. 4)

Nomination Information

Krieger-Nelson Prize

The Krieger-Nelson Prize recognizes outstanding research by a woman or a female-identifying mathematician.

	<p>Nominations are currently welcomed for the 2023 Krieger-Nelson Prize.</p> <p>Deadline: September 30</p>
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The prize lecture will be delivered at the Summer Meeting. The recipient shall be a member of the Canadian mathematical community. A nomination can be updated and will remain active for two years.

CMS aims to promote and celebrate diversity in the broadest sense. We strongly encourage department chairs and nominating committees to put forward nominations for outstanding colleagues for research in the mathematical sciences regardless of race, gender, ethnicity or sexual orientation. A candidate can be nominated for more than one research prize in the applicable categories; several candidates from the same institution can be nominated for the same research prize.

CMS research prizes are gender-neutral, except for the Krieger-Nelson Prize, which is awarded to women and female-identifying mathematicians only. Nominations of eligible women and female-identifying mathematicians for general research prizes in addition to the Krieger-Nelson Prize are strongly encouraged.

The Research Committee of the CMS reserves the right to consider a nomination for one of the three research prizes for any other, applicable prize.

The deadline for nominations is indicated above. Nominations and reference letters should be submitted electronically, preferably in PDF format, by the appropriate deadline, to knprize@cms.math.ca.

Nominators should ask at least three referees to submit letters directly to the CMS (knprize@cms.math.ca) by the deadline. Some arm's length referees are strongly encouraged. Nomination letters should list the chosen referees, and should include a recent curriculum vitae for the nominee, if available.

Call for Nominations : 2023 Jeffery-Williams Prize

Calls for Nominations

September 2022 (Vol. 54, No. 4)

Nomination Information

Jeffery-Williams Prize

The [Jeffery-Williams Prize](#) recognizes mathematicians who have made outstanding and sustained contributions to mathematical research.

	<p>Nominations are currently welcomed for the 2023 Jeffery-Williams Prize.</p> <p>Deadline: September 30</p>
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The prize lecture will be delivered at the Summer Meeting. The recipient shall be a member of the Canadian mathematical community. A nomination can be updated and will remain active for three years.

CMS aims to promote and celebrate diversity in the broadest sense. We strongly encourage department chairs and nominating committees to put forward nominations for outstanding colleagues for research in the mathematical sciences regardless of race, gender, ethnicity or sexual orientation. A candidate can be nominated for more than one research prize in the applicable categories; several candidates from the same institution can be nominated for the same research prize.

CMS research prizes are gender-neutral, except for the Krieger-Nelson prize, which is awarded to women and female-identifying mathematicians only. Nominations of eligible women and female-identifying mathematicians for general research prizes in addition to the Krieger-Nelson Prize are strongly encouraged.

The Research Committee of the CMS reserves the right to consider a nomination for one of the three research prizes for any other, applicable prize.

The deadline for nominations is shown above. Nominations and reference letters should be submitted electronically, preferably in PDF format, by the appropriate deadline, to jwprize@cms.math.ca.

Nominators should ask at least three referees to submit letters directly to the CMS (jwprize@cms.math.ca) by the deadline above. Some arms-length referees are strongly encouraged. Nomination letters should list the chosen referees, and should include a recent curriculum vitae for the nominee, if available.

Call for Nominations : 2023 Coxeter-James Prize

Calls for Nominations

September 2022 (Vol. 54, No. 4)

Nomination Information

Coxeter-James Prize

The [Coxeter-James Prize](#) recognizes young mathematicians who have made outstanding contributions to mathematical research. It is awarded on an annual basis. The selected candidate will deliver the prize lecture at the Winter Meeting.

Nominations are solicited the prior year, typically from early March to the end of September.

	<p>Nominations are currently welcomed for the 2023 Coxeter-James Prize.</p> <p>Deadline: September 30</p>
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The recipient shall be a member of the Canadian mathematical community. Nominations may be made up to ten years from the candidate's Ph.D.: researchers having their Ph.D degrees conferred within the past ten years (e.g.: degree in 2009 or later would be eligible for nomination in 2019 for the 2020 Prize). Where eligible leaves of absence may warrant, nominations may be made more than ten years from the candidate's Ph.D. Such exceptions should be clearly addressed by the nominators. A nomination can be updated and will remain active for a second year unless the original nomination is made in the tenth year from the candidate's Ph.D.

CMS aims to promote and celebrate diversity in the broadest sense. We strongly encourage department chairs and nominating committees to put forward nominations for outstanding colleagues for research in the mathematical sciences regardless of race, gender, ethnicity or sexual orientation. A candidate can be nominated for more than one research prize in the applicable categories; several candidates from the same institution can be nominated for the same research prize.

All CMS research prizes (the [Coxeter-James Prize](#), the [Jeffery-Williams Prize](#) and the [Doctoral Prize](#)) are gender-neutral, except for the Krieger-Nelson Prize, which is awarded to women and female-identifying mathematicians only. Nominations of eligible women and female-identifying mathematicians for general research prizes in addition to the Krieger-Nelson Prize are strongly encouraged.

The Research Committee of the CMS reserves the right to consider a nomination for one of the three research prizes for any other, applicable prize.

Nominations and reference letters should be submitted electronically, preferably in PDF format, by the appropriate deadline, to cjprize@cms.math.ca.

Nominators should ask at least three referees to submit letters directly to the CMS (same email address) by the deadline. Some arms length referees are strongly encouraged. Nomination letters should list the chosen referees, and should include a recent curriculum vitae for the nominee, if available.

Call for Associate Editors CJM/CMB

Calls for Nominations

September 2022 (Vol. 54, No. 4)

The Publications Committee of the CMS solicits nominations for **Associate Editors** for the *Canadian Journal of Mathematics* (CJM) and the *Canadian Mathematical Bulletin* (CMB). The appointment will be for five years beginning January 1, 2023. There are four available associate editor positions on the CJM/CMB Editorial Board.

For over sixty years, the Canadian Journal of Mathematics (CJM) and the Canadian Mathematical Bulletin (CMB) have been the flagship research journals of the Society, devoted to publishing original research works of high standard. The CJM publishes longer papers with six issues per year and the CMB publishes shorter papers with four issues per year. CJM and CMB are supported by respective Editors-in-Chief and share a [common Editorial Board](#).

Expressions of interest should include your curriculum vitae and your cover letter and sent electronically to: communications@cms.math.ca **before November 15, 2022**.

If you have any questions, please contact us at the email above.

L'Université de Montréal et de votre carrière.

Deeply rooted in Montreal and dedicated to its international mission, Université de Montréal is one of Canada's Top 100 Employers. Like the city whose name it bears, it is effervescent and multicultural.

UdeM attracts over \$500 million in research funding every year, making it one of the top three university research hubs in Canada. It also ranks among the top 100 universities worldwide and among the five best French language universities.

Through the achievements of the members of its community, UdeM participates in building today's and tomorrow's world.

Assistant Professor in Biomathematics or Data Science

Department of Mathematics and Statistics

Faculté des arts et des sciences

Job description

The Department of Mathematics and Statistics invites applications for a full-time, tenure-track position of Assistant Professor in Biomathematics or Data Science.

Responsibilities

The appointed candidate will be expected to teach undergraduate and graduate courses, supervise graduate students, be active in research, publishing, and the diffusion of knowledge, and contribute to the activities of the University.

Requirements

- » Ph. D in Mathematics, Statistics or a related field. Preference will be given to candidates with an expertise in Biomathematics or Data Science.
- » Strong research and publication record
- » Demonstrated ability to provide high quality university teaching.
- » An adequate knowledge of the written and spoken French language **or** a strong commitment to mastering the proficiency level required, in accordance to [Université de Montréal's Language Policy](#). An institutional learning support program is offered to all professors wishing to learn French or improve their communication skills.

How to submit your application

The application file should contain the following documents:

- » A cover letter: applicants must include in the cover letter one of the following statements: "I am a citizen/ permanent resident of Canada" or "I am not a citizen or permanent resident of Canada".
- » A curriculum vitae.
- » A presentation of your research program (suggested maximum two pages).
- » A statement of teaching philosophy (suggested maximum one page).
- » Copies of up to three recent publications or research papers.
- » At least three letters of recommendation are also to be sent directly by the referees.

The complete application package and letters of recommendation must be submitted to www.mathjobs.org or emailed before November 7, 2022 to:

Marlène Frigon

Chair of the Department of Mathematics and Statistics

Email: marlene.frigon@umontreal.ca

Website: <https://dms.umontreal.ca/en/>

Additional information about the position

Reference number	FAS 09-22/8
Application deadline	Until November 7, 2022 inclusively
Salary	Université de Montréal offers competitive salaries and a full range of benefits
Starting date	As of June 1 st , 2023

Université de Montréal is strongly committed to fostering diversity and inclusion. Through its Equal Access Employment Program (EAEP), UdeM invites applications from women, Aboriginal people, visible and ethnic minorities, as well as persons with disabilities. We will –confidentially– adapt our recruitment mechanisms to the specific needs of people with disabilities who request it.

UdeM embraces a broad and inclusive definition of diversity that goes beyond applicable laws, and therefore encourages all qualified individuals to apply, regardless of their characteristics. However, in accordance with Canadian immigration requirements, priority will be given to Canadians and permanent residents.

In order to measure the impact of its equity, diversity and inclusion actions, UdeM is collecting data on applicants identifying themselves with one of the groups targeted by the Equal Employment Opportunity Act, namely women, Aboriginal people, visible minorities, ethnic minorities and people with limitations. To this end, we thank you for completing [this self-identification questionnaire](#). The information you provide through this form is **strictly confidential** and will be shared only with those responsible for the UdeM EAEP. If you wish, you may also indicate that you belong to one of the targeted groups in your cover letter, which will be reviewed by the selection committee and the assembly of peers.

Université de Montréal's application process allows all members of the Professor's Assembly to review the application files submitted. If you wish to keep your application confidential until the shortlist is established, please mention it in your application

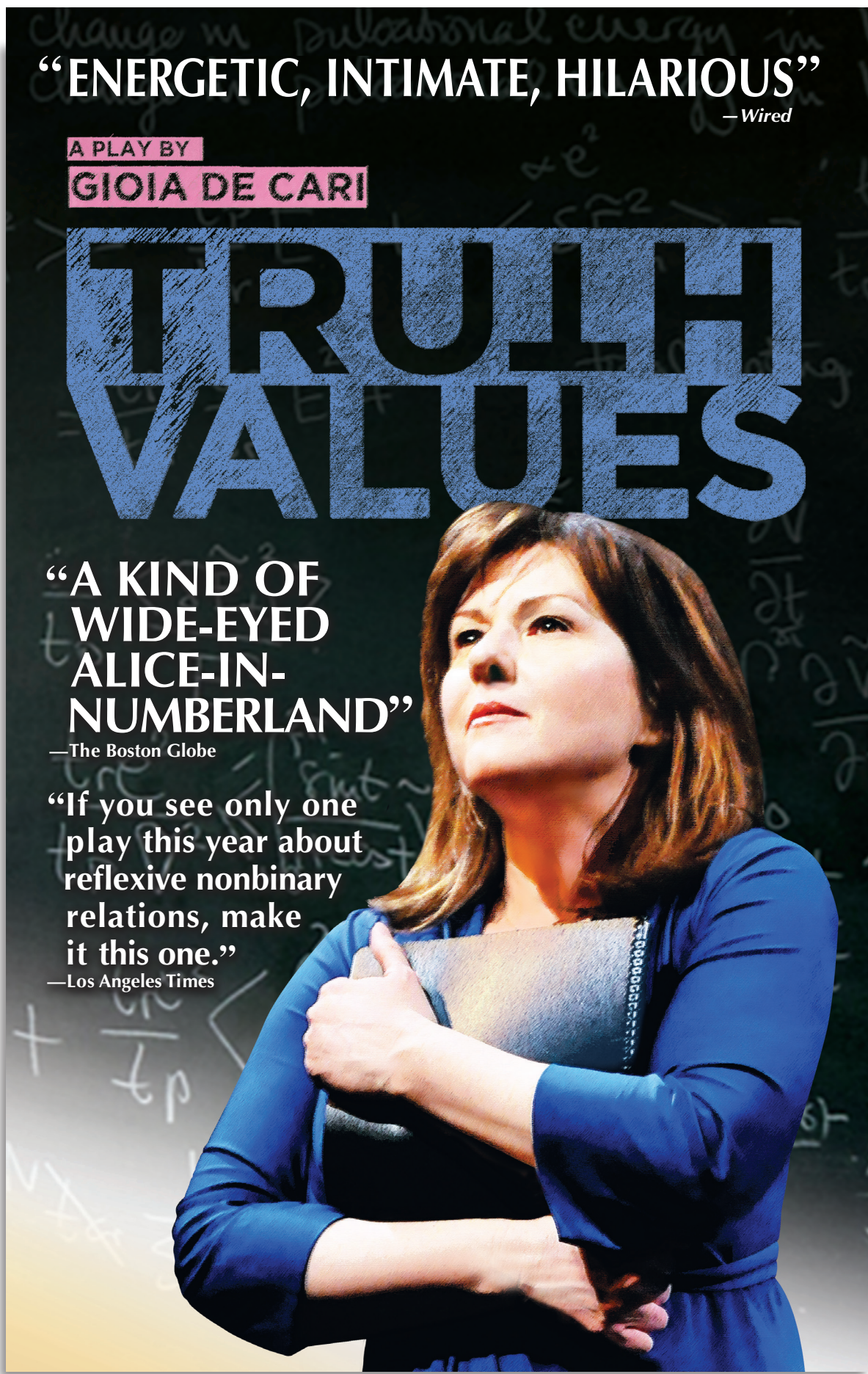


Université 
de Montréal

The University of Montreal
and of the world.

SEE AWARD-WINNING SHOW FOLLOWED BY PANEL DISCUSSIONS!

Writer/performer and “recovering mathematician” Gioia De Cari creates “refreshing delights of humor, even compassion” (EDGE Boston) in this true-life tale, winner of the New York International Fringe Festival Overall Excellence Award.



Session 1 September 15th, 2022

Performance of *Truth Values*

16:30 – 17:50 PM

Post-Show Panel Discussion (1)

18:00 – 18:35 PM

Discussion Theme: “*Challenges of Women in STEM: What they are, how to address them and make positive changes*”

Panelists: Moderator, Sheila James (EDI consultant); Alexandra McSween (Stats Canada); Lora Ramunno (Professor, Physics, uOttawa); Nafissa Ismail (Professor, Psychology, uOttawa)

Session 2 September 16th, 2022

Performance of *Truth Values*

17:00 – 18:20 PM

Post-Show Panel Discussion (2)

18:30 – 19:05 PM

Discussion Theme: “*Raising Awareness: our responsibility to create an inclusive, diverse and equal STEM community*”

Panelists: Moderator, Catherine Mavriplis (Professor, Engineering, uOttawa); Frithjof Lutscher (Professor, Mathematics, uOttawa); Hamda Omer (Current student at uOttawa, Engineering)

Session 3 September 17th, 2022

Performance of *Truth Values*

13:00 – 14:20 PM

Post-Show Panel Discussion (3)

14:30 – 15:05 PM

Discussion Theme: “*Pave Your Career: How to find a fulfilling career path that stems from STEM*”

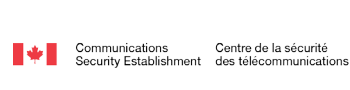
Panelists: Moderator, Megan Dewar (Tutte Institute); Barbara Vanderhyden (Corinne Boyer Chair in Ovarian Cancer Research, uOttawa); Maryam Haghighi (Bank of Canada)



University of Ottawa LabO Theatre | 60 Waller St., Ottawa, Ontario, Canada

Book your tickets at <https://www.eventbrite.ca/e/truth-values-uottawa-tickets-401823473827>

Learn more about the show at www.TruthValues.org



December 4–9, 2022 | Vancouver, BC | #PRIMA2022

Pacific Rim Mathematical Association

Congress 2022



PRIMA

Early Registration is open!

The 2022 Pacific Rim Mathematical Association Congress will be taking place in Vancouver, Canada, between December 4–9, 2022. The fourth meeting will be hosted by the Pacific Institute for the Mathematical Sciences (PIMS) at the Sheraton Wall Centre in Vancouver.

PRIMA was established to bring a well-coordinated and concerted effort to discuss the latest developments in the mathematical sciences with countries that make up the Pacific Rim. PRIMA's goal is to stimulate a vibrant and interconnected mathematical community whose activities have an unprecedented impact on economic, social, and cultural development. Past congresses have been hosted in Australia (2009), China (2013) and Mexico (2017), with more than 300 participants at each session.

Registration

At the 2022 Congress registered participants will be able to attend:

Public and Plenary Lectures

Special Sessions

PRIMA Career Fair

PRIMA Early Career Research
Showcase

Networking Opportunities

Registration dates:

Early Reg: Now through to July 31

Regular Reg: Aug 1 - Oct 15

Late Reg: Oct 15 - Dec 9

<https://prima2022.primamath.org/#registration>*

*Graduate students from PIMS universities are eligible for a special discount (See website for details).

Early Career Research Showcase

Early career researchers are encouraged to submit proposals for talks and posters before August 31, 2022.
Submissions are being accepted here:

<https://prima2022.primamath.org/#sessions>

Applications for travel funding are also being accepted.

For queries please contact the PRIMA Organizing Team at events@pims.math.ca

CMS WINTER MEETING RÉUNION D'HIVER SMC

winter22.cms.math.ca
hiver22.smc.math.ca

2022

MITACS LECTURE | CONFÉRENCE MITACS

Dr. Suzanne Weekes (SIAM)

PLENARY LECTURES | CONFÉRENCES PLENIÈRES

Dr. Gigliola Staffilani (Massachusetts Institute of Technology)

Dr. Peter Shor (Massachusetts Institute of Technology)

Dr. Fok-Shuen Leung (University of British Columbia)

SCIENTIFIC DIRECTORS | DIRECTEURS SCIENTIFIQUES

Dr. Ada Chan (York University)

Dr. Gregory Smith (Queen's University)

PRIZE LECTURES | CONFÉRENCES DE PRIX

ADRIEN POULIOT AWARD | PRIX ADRIEN POULIOT

Dr. John Mighton, OC (Jump Math)

DAVID BORWEIN AWARD | PRIX DAVID BORWEIN

Dr. Jacques Hurtubise (McGill University)

COXETER-JAMES PRIZE | PRIX COXETER-JAMES

Dr. Fabio Pusateri (University of Toronto)

BLAIR SPEARMAN DOCTORAL PRIZE |

PRIX DE DOCTORAT BLAIR SPEARMAN

Dr. Qin Deng (University of Toronto)

Toronto
Metropolitan
University

YORK
UNIVERSITÉ
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