

**Title of Proposal** Bridges Lecture Series**Contact information***The one person and place to
Communicate with the applicant(s).*

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Institution or department to administer grant funds

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Summary *Less than 100 words* **Total amount requested in this competition** \$ **2500**

This project is an experimental lecture series that we entitled “*Bridges.*” Each lecture in *Bridges* will be run jointly by a mathematician and a non-mathematician. The intended audience includes math students, humanities students, and members of the local Kitchener-Waterloo population. The goal of the series is to bridge the gap between those predisposed to mathematics, and those for whom mathematics appears daunting.

Applicants*Put any specific information on the relevant experience or expertise of an applicant in "Other".*

Name(s)	Benoit Charbonneau		
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Position	Assistant Professor		
Employer	St. Jerome's University		
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CMS member number

Current Grants

Often, public lectures are unintelligible to non-experts and frustrating for mathematicians. Yet, we persist in offering them because we believe it worthwhile to engage the broader public and to foster a general appreciation of mathematics.

I propose an alternative lecture series, wherein we invite the general public into our world through topics that interest them. These lectures should be *Bridges* in the true sense of the word: they should connect two worlds which are often divergent.

For example, a *Bridge* event might link geometry and history of religion through Abbott's 1884 novel *Flatland*. Most mathematicians know *Flatland*, but ignore that Abbott was a priest. He wrote his book a few years after the highly publicized trial of a psychic. During that trial, prominent scientists stated that supernatural acts may be possible if the psychic can access the fourth dimension. Theologians of the time took advantage of this publicity to explain that angels and god existed extra-dimensionally. Abbott's work helped explain and popularize this concept. It fits into the mood of the day, which increasingly hitched popular beliefs to science in an attempt to garner legitimacy. This link was symptomatic of pervasive shifts in western cultural values stimulated largely by the Industrial Revolution.

A *Bridge* evening based on *Flatland* would begin with a thirty minutes presentation by a professor of Religious Studies at St. Jerome's. This lecture would focus on the history of late Victorian theological notion. It would be followed by a fifteen minute presentation about the state of mathematics leading up to the writing of *Flatland*, and then a screening of *Flatland the Film*, a ninety-eight-minute feature directed by Ladd Ehlinger Jr.

Other possible lecture topics include: the limits of Greek and Roman mathematics, mathematics in Medieval Europe and Islam, mathematics and international relations, mathematics and the Simpsons, among others. This could be very fertile ground and in preliminary discussions with my colleagues in the Faculty of Arts, the idea gained strong initial traction. I intend to spend time this Fall continuing to promote the project to my colleagues and gathering additional ideas for *Bridge* lectures.

To be successful, this series must attract non-mathematics students. I propose, for this experiment, to have four lectures, mainly to allow the audience to grow from the reputation of the series (if it works from the start), or to adjust if this objective is not met initially.

If the experiment is successful, I will propose to the University that it be a regular lecture series with its own budget. The funds from the CMS Endowment therefore form a seed grant for a potentially very rewarding program of promotion of mathematics. In all cases, I intend to report about the experiment in the CMS Notes.

Budget

Description	Revenue		
St. Jerome's University Academic Dean (committed)	\$1,500.00		
CMS Endowment Grant requested	\$2,500.00		
Total Revenue \$	\$4,000.00		

Expenses			
Artwork and branding of the event (quote: Geai Bleu Graphique)	\$500.00		
Adaptation to 4 posters (quote: Geai Bleu Graphique)	\$200.00		
Adaptation to webpage, design (quote: Geai Bleu Graphique)	\$150.00		
Poster printing (4x250) (quote: Thom Light at Wade Tech)	\$500.00		
Publicity in local newspapers	\$250.00		
4 Receptions (for an audience of 50-60 persons)	\$2,400.00		
Total Expenses \$	\$4,000.00		

Other

Funding, partners, revenue potential, information on applicants such as publications or awards, at most 20 lines.

The budget is intended to cover extensive publicity efforts. If the experiment succeeds, the artwork could be reused in the next incarnation of the series. To attract the audience and encourage discussions, each lecture would be followed by a small reception with wine, cheese, and pastries. While a large part of the budget for the reception is for food, we will hire students to host it.

The Academic Dean of St. Jerome's University, Myroslaw Tataryn, has been consulted and is enthusiastic about the project. He committed \$1,500 to leverage the CMS's funds. Note that St. Jerome's University has a successful history of bringing in the public for special lectures.

Timeline: Preparation of the series: January to mid-February;
 Publicity: mid-February to mid-March;
 Lectures: mid-March, mid-April, mid-October, and mid-November.

Information on the applicant: I received my PhD at MIT under the supervision of Tomasz Mrowka in 2004 and was a postdoctoral fellow at McGill University under Jacques Hurtubise. I happily returned to Canada after three years spent at Duke University as a Visiting Assistant Professor. I am now an Assistant Professor at St. Jerome's University, a university federated within the University of Waterloo. My main research interests lie in differential geometry and gauge theory. I received funding in 2000 from the Endowment Fund for the "CUMC-US Exchange" project whose result was the CUMC Operations Manual used by many CUMC planning committees since then.

Project start date: January 2011

Project finish date: December 2011