**APPLICATION FOR A TRAVEL GRANT**

to the

**Fourteenth International Congress on Mathematical Education (ICME-14)**

**Shanghai, China**

**July 12-19, 2020**

This travel grant is supported by a grant (PD# 35281) from the National Science Foundation (NSF) to Michigan State University (MSU) and the National Council of Teachers of Mathematics (NCTM). The terms of the proposal to NSF impose certain restrictions on the award and use of the travel grants (see item #12).

Deadline: Submit to Margaret Iding at [idingm@msu.edu](mailto:idingmburrill@msu.edu) by October 15, 2019

For questions contact Gail Burrill at burrill@msu.edu

Please *type* or *print* the requested information very clearly and submit the form electronically.

**Q1: Contact Information:**

Name (First, Last) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

School or Institution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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City/Town State/Province Zip/Postal Code

Email Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Home Cell

**Q2: Position or Title:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Q3: Highest Degree Earned: Include degree, date and awarding Institution.**

Highest Degree Earned:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Institution:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q4: Level(s) of your present primary activity or special interest. Please check one or more.**

\_\_\_\_Pre-K, Early Childhood Years \_\_\_\_ Post-Secondary Institution

\_\_\_\_Elementary School \_\_\_\_Supervisor

\_\_\_\_Middle/Junior High School \_\_\_\_Graduate Student

\_\_\_\_\_High School \_\_\_\_Other (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)igh

**Q5: Please describe your current position and work, including a description of your most significant activities/leadership positions/publications/etc. in mathematics and mathematics education. Of particular interest is work that has involved or impacted underserved populations. Use an additional sheet if necessary.**

**Q6: Other positions held (professional, scientific, teaching, administrative):**

Name of Institution or Organization Title of Position Dates

**Q7: The following is a list of topic study groups and survey teams. Place a check indicating two topic study groups and one survey team in which you plan to participate. For more information about these groups, see Scientific Programs at** [**http://www.icme14.org/static/en/news/37.html?v=1558062179750**](http://www.icme14.org/static/en/news/37.html?v=1558062179750)

**TOPIC STUDY GROUPS**

\_\_TSG 1: Mathematics education at preschool level

\_\_TSG 2: Mathematics education at tertiary level and access to tertiary level

\_\_TSG 3: Activities and programs for gifted students

\_\_TSG 4: Activities and programs for students with special needs

\_\_TSG 5: Teaching and learning of number and arithmetic

\_\_TSG 6: Teaching and learning of algebra at primary level

\_\_TSG 7: Teaching and learning of algebra at secondary level

\_\_TSG 8: Teaching and learning of geometry at primary level

\_\_TSG 9: Teaching and learning of geometry at secondary level

\_\_TSG 10: Teaching and learning of measurement

\_\_TSG 11: Teaching and learning of probability

\_\_TSG 12: Teaching and learning of statistics

\_\_TSG 13: Teaching and learning of calculus

\_\_TSG 14: Teaching and learning of programming and algorithms

\_\_TSG 15: Teaching and learning of discrete mathematics

\_\_TSG 16: Reasoning, argumentation and proof in mathematics education

\_\_TSG 17: Problem posing and solving in mathematics education

\_\_TSG 18: Students’ identity, motivation and attitudes towards mathematics and its study

\_\_TSG 19: Mathematical literacy, numeracy and competency in mathematics education

\_\_TSG 20: Learning and cognition in mathematics (including the learning sciences)

\_\_TSG 21: Neuroscience and mathematics education / Cognitive Science

\_\_TSG 22: Mathematical applications and modelling in mathematics education

\_\_TSG 23: Visualization in the teaching and learning of mathematics

\_\_TSG 24: The role and the use of technology in the teaching and learning of mathematics at primary level.

\_\_TSG 25: The role and the use of technology in the teaching and learning of mathematics at lower secondary level.

\_\_TSG 26: The role and the use of technology in the teaching and learning of mathematics at upper secondary level.

\_\_TSG 27: The role of the history of mathematics in mathematics education

\_\_TSG 28: Preservice mathematical teacher education at primary level

\_\_TSG 29: Preservice mathematical teacher education at secondary level

\_\_TSG 30: In-service mathematical teacher education and mathematical teacher professional development at primary level.

\_\_TSG 31: In-service mathematical teacher education and mathematical teacher professional development at secondary level.

\_\_TSG 32: Knowledge in/for teaching mathematics at primary level

\_\_TSG 33: Knowledge in/for teaching mathematics at secondary level

\_\_TSG 34: Affect, beliefs, and identity of mathematics teachers

\_\_TSG 35: Knowledge and practice of mathematics teacher educator

\_\_TSG 36: Research on classroom practice at primary level

\_\_TSG 37: Research on classroom practice at secondary level

\_\_TSG 38: Task design and analysis

\_\_TSG 39: Language and communication in the mathematics classroom

\_\_TSG 40: Research and development on mathematics curriculum

\_\_TSG 41: Research and development on textbooks and resources for learning and teaching mathematics

\_\_TSG 42: Research and development in assessment in mathematics education

\_\_TSG 43: Research and development in testing (national and international) in mathematics education

\_\_TSG 44: Mathematics and interdisciplinary education

\_\_TSG 45: Mathematics for non-specialist/mathematics as a service subject at tertiary level

\_\_TSG 46: Mathematical competitions and other challenging activities

\_\_TSG 47: Mathematics education in a multilingual environment

\_\_TSG 48: Mathematics education in a multicultural environment

\_\_TSG 49: Distance learning, e-learning and blended learning of mathematics

\_\_TSG 50: Mathematics education in and for work:continuous mathematics education including adult education

\_\_TSG 51: Mathematics education for ethnic minorities

\_\_TSG 52: Ethnomathematics and Mathematics Education

\_\_TSG 53: Equity in mathematics education

\_\_TSG 54: Social and political dimensions of mathematics education

\_\_TSG 55: The history of the teaching and the learning of mathematics

\_\_TSG 56: Philosophy of mathematics and mathematics education

\_\_TSG 57: Diversity of theories in mathematics education

\_\_TSG 58: Empirical methods and methodologies in mathematics education

\_\_TSG 59: Mathematics and creativity

\_\_TSG 60: Semiotics in mathematics education

\_\_TSG 61: International cooperation in mathematics education

\_\_TSG 62: Popularization of mathematics

**SURVEY TEAMS**

<http://www.icme14.org/static/en/news/50.html?v=1558062179746>

|  |  |
| --- | --- |
|  | ST1: Survey team on research on university mathematics education |
|  | ST2: Survey team on early childhood mathematics education (up to age 7) |
|  | ST3: Survey team on teachers’ collective work as a regular school practice for teacher |
|  | ST$: Survey team on the teaching and learning of mathematical modelling and interdisciplinary  mathematics educations development |

**Q8: Which of the earlier Congresses did you attend, if any?**

\_\_\_ ICME-1, Lyon \_\_\_ ICME-6, Budapest \_\_\_ ICME-10, Copenhagen

\_\_\_ ICME-2, Exeter \_\_\_ ICME-7, Quebec \_\_\_ ICME-11, Monterrey

\_\_\_ ICME-3, Karlsruhe \_\_\_ ICME-8, Seville \_\_\_ ICME-12, Seoul

\_\_\_ ICME-4, Berkeley \_\_\_ ICME-9, Tokyo \_\_\_ ICME-13, Hamburg

\_\_\_ ICME-5, Adelaide \_\_\_ NONE

If you checked yes for one of the earlier congresses, please describe how you thought it enhanced your own work in mathematics education. How did you share what you learned with other educators?

**Q9: This is an important part of the application:**

(a) In two or three sentences describe why you think you should be given one of the travel awards.

(b) How do you think your participation in ICME-14 will benefit you and your colleagues?

(c) How will you disseminate what you learn and experience at the Congress to your colleagues and to the wider mathematics education community?

**Q10: The ICME-14 Travel Grant will only cover up to $2,750 of expenses. If you receive this travel grant, what other sources of funds would you be able to use? (Note: Use of other NSF sources is not allowed without special permission.) Please check all that apply:**

\_\_ Other state or federal grants

\_\_ Institutional grants

\_\_\_Private foundation grants

\_\_ Personal funds

\_\_ Other (identify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q11: (Optional) Please check the appropriate category in (a) and (b):**

1. Sex:

\_\_\_ Male \_\_ Female prefer to not disclose prefer to self identify

**(b) Racial or ethnic origin:**

\_\_\_ American Indian or Alaskan Native \_\_Hispanic:

\_\_\_ Asian \_\_ Mexican American/Chicano

\_\_\_ Pacific Islander \_\_ Puerto Rican

\_\_\_ Black (non Hispanic) \_\_ Cuban

\_ Caucasian/White (non Hispanic) \_\_ Other

\_\_\_ Mixed

**Q12: The terms of the proposal to NSF require that each grantee do several things:**

First, prepare a typed report that include the following:

1. A specific statement about the content of the sessions in which you participated or attended and how they were or were not relevant to your work in the United States
2. A statement of what you learned at ICME-14 that is relevant to the teaching of mathematics, to improving the mathematical and/or pedagogical preparation of teachers, to research in mathematics education, or to another aspect of mathematics education in the U.S.

Second, complete a post-ICME-14 questionnaire related to the conference and its impact on your work.

Third, take part in a particular theme group around a selected topic:

1. Seek out sessions at the Congress relevant to that theme, and
2. With members of your group, prepare a written report on the discussions and presentations that took place. This report will be published in appropriate journals and news bulletins. A tentative list of themes is below. Please list your top three preferences in order of priority.

\_\_\_\_\_ Equitable opportunities for all students to learn mathematics and statistics with respect to both content and structural barriers such as teacher diversity

\_\_\_\_\_ Activities for and research on students with special needs including giftedness and creativity

\_\_\_\_\_ Mathematical Modeling

\_\_\_\_\_ Role of institutions of higher education in preparing and supporting mathematics and statistics teachers

\_\_\_\_\_ Best practices for teaching/instruction including ongoing teacher support and development

\_\_\_\_\_ Strategies to increase student engagement and understanding, particularly in post high school settings

\_\_\_\_\_ Curricular issues, in particular, multiple mathematical/statistical pathways in both school and tertiary institutions

**Filling in your name below indicates that you agree to submit your written report by**

**September 1, 2020 and that you will agree to take part in a theme group and work collectively to prepare a report due September 30, 2020.**

Signature: \_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The application is due 15 October 2019. Submit this form electronically to Margaret Iding at** [**idingm@msu.edu**](mailto:idingm@msu.edu)**.**

**ICME-14 Travel Grant Program**

Gail Burrill Margaret Iding

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