

BIRS Workshop 07w5062, Innovations in Mathematics Education via the Arts, January 2007

**1. Participant name.**

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**2. Affiliation.**

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**3. Title of summary.**

Student mathematical art contest

**4. Target audience.**

High-school and/or college students. Depending on the interest, we may do this for any size of community, from a single town to the whole world. Probably the best thing to do is to try it in some metropolitan area first.

**5. Timeframe.**

One semester, one year, or two years, depending on the interest.

**6. Relevant field of mathematics.**

General mathematics.

**7. One or two paragraphs of summary description.**

There's probably a good name for this common sort of contest, but I don't know it. Here's how it works: Every student will submit a work of art. From each class, after some time for exhibition, one or several winners will be selected, and these will then move on to the next higher level of competition, maybe the size of a school district or a small metro area. Then, after some more time for exhibition, more winners will be selected, and these will move on to the state/provincial level. Obviously, with sufficient interest, we could carry this to the national and international levels.

Evaluators/judges will be drawn from anyone willing to participate. Certainly at the local levels we may need plenty of active faculty willing to participate. At the higher levels, we could try to recruit higher-profile figures to help judge. We may have several categories, especially painting, drawing, sculpture, computer graphics, dance, and/or music. However, for all categories, the artwork must demonstrate some distinct mathematical knowledge. Selection criteria may include originality and craftsmanship, but especially emphasized should be either significance or facility of mathematical expression.

The goals of the contest are: 1. Encourage all students to express mathematics via the arts. 2. Realize new works of art expressing mathematical ideas. 3. Recruit people to participate in the math-art community.