

Extrait du
UREM :
Unité de Recherche sur l'Enseignement des Mathématiques

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Can Art save Mathematics

- Extra-muros -



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Appel de Dirk Huylebrouck huylebrouck@gmail.com

Dear All,

I am involved in a so-called "Discussion Group" at the forthcoming "International Congress on Mathematical Education" ICME-12 in Korea (see <http://www.icme12.org/default.asp>).

It is called DG 16 : "Can art save mathematics ?" and a description is available here :
http://www.icme12.org/sub/sub02_06.asp . Please consider this e-mail as an invitation to participate in the discussion
<http://www.icme12.org/sub/dg/Dgload.asp?tsgNo=16>

Just click on the button "write" on the bottom at the right to participate in the discussion about our key questions (given on the web site, and reproduced below).

Feel free to invite as many people as possible to participate by forwarding this message. Of course, some people will get this invitation several time as we have many common friends, but, well, it means they will notice we are working on a common goal.

Sincerely, Dirk Huylebrouck

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Key questions :

Q1 : How much art should "artistic mathematicians" know in order to produce more than embellished mathematical results, so that their artistic mathematics are not mere "kitschy attempts" ?

Q2 : How much mathematics should "mathematical artists" grasp in order to get really involved in the pure sciences, so that their mathematical art is not mere "baby math" ?

Q3 : Or else, instead of turning mathematicians into 'artists' and artists into 'mathematicians', wouldn't it be better both sides simply cooperate - and if so, what should be the framework for such a collaboration ?

Q4 : How can mathematics departments take mathematical art achievements into account in their output evaluation ? For example, are mathematical art journals included in the journal rankings ?

Q5 : How should the refereeing process work in this case where "peers" are by definition hard to find since the creative process implies every mathematical artwork should be unique ? In the art world, refereeing is seldom done by peers.

Q6 : What is the difference between a scientific paper on mathematical art and a poetic artistic portrayal ? The objectives of a purely mathematical paper are well known, but what about those of a paper on mathematical art ?

Q7 : As for its implications in teaching mathematical art to art students, what are their specific needs and aspirations ? The scientific “aha-Erlebnis” and “problem solving” are not sufficient, so how do we stimulate the creative mathematical approach ?

Q8 : Is there a need for teaching mathematical art ? The implications could be students' attention is diverted from classical mathematics material (leading to “easy credit” courses). However, it could also raise awareness of the usefulness and the beauty of mathematics, inspiring students to take math courses.