



EUROPEAN SOCIETY FOR MATHEMATICS AND ART NEWSLETTER

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November 2010

FOREWORDS ACTIVITIES RESOURCE UPDATE GALLERY

Dear Colleagues,

Proceedings of the July Conference

Springer publishing has comited to publish the acts of the conference. The editing may take some time due partly to the challenge of communicating properly the complex interaction of mathematic, computer science and art. The technical content will cover the many artistic works exhibited and the technic used by their creators.

Images should have to be sent in high resolution, TIF format to insure best possible printing quality. If needed, authors can send their material to the editor in CD/DVD format

The introduction will not be a exegese of the different papers but an attempt to analyse the concept of beauty in the context of mathematics and art.

Exhibitions and competition

Many exhibitions use mathemathematical tools as a theme or point of reference. There could be displays of works developped only from the use of recurrence 's formulae, we could see an immensity of fractals among other.

The German mathematical school of geometry developed a program called "Surfer", that produces beautiful visualisations of algebraic surfaces and polynomial equations. Andreas Matt from Oberwolbach and also curator of the Imaginary exhibits is introducing an international competition based on that software. For more information visit their site at <http://paris.imaginary-exhibition.com>

A suggestion that came to my mind would be to recreate an Arcimboldo like aggregate by first assembling in a significant ways several objects created from several different polynomials, introduce constrains in the data and reasembe the result in a coherent visual statement.

Algebraic geometry creates static objects. The next step would be to create works in a dynamical way, possibly a new step along Humanity Faustian destiny.

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Problems corner and architecture

Girard Desargues (1591-1661) is the founder of projective geometry. He was not only the best geometer of its century, but an expert in the fields of mechanics and architecture. He also had a high sense of ethic : Fermat and Descartes referred to him when disputing on scientific questions.

With that glimpse of history, I would like to emphasize the importance of mathematical models and problems posed by architectural challenges. Being not all well informed of practical issues, the mathematical community sadly ignores them. We should be grateful to engineers and architects that share concerns of that nature in question to mathematicians and in open forums..

Note

Do not forget to check the ESMA calendar. Check it often to get the latest news on Math & Art activities <http://www.mathart.eu/calendar.html>

With my best wishes,

*Claude P. Bruter
11-5-2010*

ACTIVITIES

Posted this month on the ESMA website, activities page. For information, listing of upcoming events: info@mathart.eu

November 9 December 17, 2010. IMAGINARY. Library "mathématiques informatique recherche". Jussieu Campus, UPMC (Sorbonne Universités). Open to the public. 9:00 AM - 7:00 PM, Monday -Friday. More information at <http://paris.imaginary-exhibition.com>

November - December 15, 2010. Picture competition using the program **SURFER**. Website "**Images des Mathématiques**" in conjunction with the IMAGINARY exhibition in Paris. More information at <http://paris.imaginary-exhibition.com>

November 11, 6.00 - 7.30 pm. On going. **Maths-Art Seminars at London Knowledge Lab** Robert Reid and Anthony Steed, The art of spacefilling in two and three dimensions.

Jan 14, 2011. Maths & Perspectives. Lecture by Claude Bruter [Université du Temps Libre](http://www.univ-tl.fr) Essonne. France.

RESOURCE CENTER

Posted this month on the ESMA website, resource center page. For suggestion, recommendation, comment on new posts: info@mathart.eu

- **Manuel A. Báez** - Crystal & Flame: Form and Process. TEDxCarleton University, CND. Lecture ([Mathematics & Art. EN](#)).
- **Claude Bruter** - Fine arts to the service of Mathematics. EMS Newsletter, Sept.2010 ([Mathematics & Art. EN](#)).

GALLERY

Manuel A. Báez Associate Professor, Carleton University Azrieli School of Architecture and Urbanism. CND.



Complex Simplicity Installation at the David Azrieli Gallery, as part of the exhibition on the work of Canadian Architect James W. Strutt, Carleton University, 2006



Major's Hill Park Pavilion proposal study, Ottawa Tulip Festival, 2009

MATHEMATICS & FILM



<http://zalafilms.com/index.html>

Julia Robinson and Hilbert's 10th Problem. 2008. Directed by George Paul Csicsery.
A one-hour biographical documentary on an important American mathematician against a background of mathematical ideas.

Taking the Long View: The Life of Shiing-shen Chern. 2010. Directed by George Paul Csicsery.
Chern's work revitalized and reshaped differential geometry and transcendental algebraic geometry. His papers marked the re-entry of differential geometry into the mathematical mainstream, and his tenure at Berkeley (1960–1979) helped make the latter a premier center of geometry in the world.

N is a Number: A Portrait of Paul Erdős. 1988 - 1991. Directed by George Paul Csicsery.
Erdős wrote and co-authored over 1,500 papers and pioneered several fields in theoretical mathematics. He established himself as a serious mathematician at the age of 20 when he devised a more elegant proof for Chebyshev's theorem

Porridge Pulleys and Pi: two mathematical journeys. 2004. Directed by George Paul Csicsery
A portrait of two very different mathematicians, porridge pulleys and Pi features Fields medalist Vaughan Jones, one of the world's foremost knot theorists and an avid windsurfer, and Hendrik Lenstra, a number theorist with a passion for Homer and all things classical.



Citrus $x^2+z^2 = y^2(1-y)^3$

IMAGINARY
AVEC LES YEUX
DES MATHÉMATIQUES

exposition
interactive
itinérante
du « *Mathematisches
Forschungsinstitut
Oberwolfach* »

UPMC 
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OUVERTURE OFFICIELLE
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mardi 9 novembre 2010
à 17 heures
Campus Jussieu
Secteur Ouest • Patio 15-26