FOREWORDS   ACTIVITIES   RESOURCE UPDATE   GALLERY

Dear Colleagues,

Is a classification pertinent ?

There might be different ways to classify our papers. The following example might be of interest for future communication purpose.

In his article "Le problème historique des rapports entre perspective et géométrie" Destin de l'Art, Desseins de la Science, actes du Colloque A.D.E.R.H.M. Université de Caen, 24-29 Octobre 1986 (sous la direction de Didier Bessot, Yves Hellegouarc'h, Jean Le Goff) ADERHM 1991 ISBN: 2-9505640-0-3, the French historian of mathematics René Taton wrote:

..."As regard to perspective, this new discipline got rapidly popularized owing to the publication of numerous treatises of very different orientations.

Some of them, intended to practitioners who were opposed to any hold of mathematics on art, avoid to have recourse to the geometrical reasoning and merely present and comment a set of graphical rules meant to allow the artist at best to imitate nature, without any theoretical constraint.

Influenced both by Dürer's tradition and the baroque's, other treatises strive first and foremost to educate painters and other producers of art forms by showing them examples of models in a variety of different postures, examples of landscape, architectural forms and decorative motifs in space.

A third category of treatises, conceived by artists with some geometrical background presents an overview of technique and knowledge in the field and states its scientific foundation without entering into the specific of geometrical reasoning.

Lastly, a unique type of investigation, the one in which we are particularly interested in, is the work of scientific authors wishing both to revisit the mathematical foundation of that discipline and explore the possibilities it offers in the field of geometrical research."...

Are there some similarities of categories between past and recent Maths & Art publications? What categories (1, 2, 3, 4) do you think your writing might belong to? Are there any other classification criteria?

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A Parisian gallery dedicated to Math & Art

Philippe Rips has decided to dedicate his new showroom, 16 rue Jacquemont, Paris, XVII, to math & art exhibitions. It will be free for ESMA members. If interested in exhibiting your work at the gallery, contact him directly at rips.philippe@club-internet.fr.

ESMA Exhibit calendar 2011 in progress

An exhibition & lecture series event has been scheduled in Aime, Savoie, FR. June 16 0 July 30, 2010. Benefit of the exhibitions for partici-pants: discover the beautiful environment & landscape in the heart of the French Alps: Aime - Coeur de la Tarentaise

Problems corner

There are several ways to create mathematical objects and mathe-matical-art statements. A catalogue of 3D objects, 2D visualizations and multimedia animations classified according to the procedure that has been used to create them would be useful to all. Since those are undevel-oped procedures - the field of mathematical researches and discoveries being quite large - thinking about a commonly agreed cataloguing format might be helpful for future reference. In this open tribune we invite ESMA members to share their personal advice & suggestion with all readers.

Note

ESMA has added a new calendar page to its site. The calendar is updated on a weekly bases. 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
10-1-2010

ACTIVITIES

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

October 10-28 - B55 Kortar Galeria. Budapest, Hungary. **Janos Szasz Saxon**. Polyuniverzuma.

October 14-30 - ArteVison. Valldemossa, Mallorca, Spain. **Cristina Bes**a. Corpi Incrociati. Study of symmetry in still-photography.

October 19-November 6 - Llewellin Gallery Alfred State College NY. **Jean Constant**, **Bjoern Daempfling, Carol Flaitz, Anna Ursyn** & guests. NanoArt 2010.

November 6-7 -. AMS - Richmond, VA, Mathematics and the Arts, **Michael J. Field**, University of Houston, **Gary R. Greenfield**, University of Rich-mond, **Reza Sarhangi**, Towson University.

February 25-April 2, 2011 Selby Gallery. Ringling College of Art and Design, FL. Rhythm and Structure: Mathematics, Art and Poetic Reflec-tions.

RESOURCE CENTER

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

- **Eugenia Emets**: Intuitive approach to geometric construction. (Mathematics & Art. EN)

- **Claude Bruter**: An Introduction to the construction of some mathematical objects. EN. (Mathematics & Art. EN)

- **Herve Lehning:** Overview of Francois Apery (Winner of Tangente Art & Math 2010 competition) approach to elliptic systems for sphere reversal. (Mathematics. FR)

- **Janos Szasz Saxon**: PolyUnizuma. Color dynamics as a teaching tool. (Mathematics & Art. EN)

GALLERY

Leveraging Mathematics, Science and Art to visualize Internet Communication

From **CAIDA - Cooperative Association for Internet Data Analysis - San Diego Supercomputer Center, University of California, San Diego*
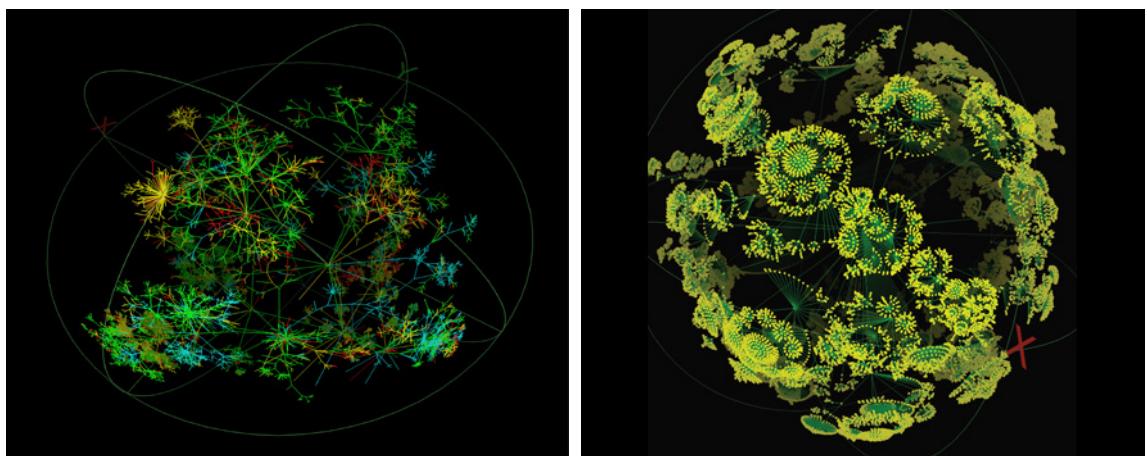
Walrus visualizations of round-trip time measurement made by CAIDA macroscopic internet topology monitor
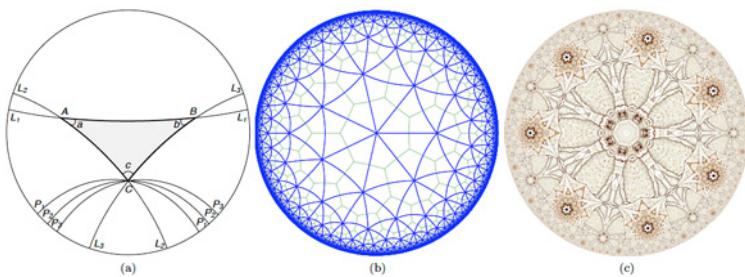
Poincare disk model. In (a), L1;2;3 and P1;2;3 are examples of hyperbolic lines. Lines L1;2;3 intersect to form triangle ABC. The sum of its angles a + b + c < . As opposed to Euclidean geometry, there are innitely many lines (examples are P1;2;3) that are parallel to line L1 and go through a point C that does not belong to L1. In (b), a f7; 3g-tessellation of the hyperbolic plane by equilateral triangles, and the dual f3; 7g-tessellation by regular heptagons are shown. All triangles and heptagons are of the same hyperbolic size but the size of their Euclidean representations exponentially decreases as a function of the distance from the center, while their number exponentially increases. In (c), the exponentially increasing number of men illustrates the exponential expansion of hyperbolic space. The Poincare tool [1] is used to construct a f7; 7g-tessellation of the hyperbolic plane, rendering a fragment of The Vitruvian Man by Leonardo da Vinci.

RÉBUS

A Clément Rosset

Qu'augmente la tourmente ou que le pire empire,
Quelle allégresse emplit mon coeur jubilateur ?
Serais-je, ô libre arbitre, un simple spectateur,
Puisse ma bonne humeur conserver son empire !

A toute comédie acceptant de souscrire,
Car d'espace et de temps le décor est trompeur,
Je lance vers le ciel, d'un front lisse et sans peur,
Ma joie indifférente et mes éclats de rire.

Le non-espoir est politesse de l'amour :
Quand la clé du rébus est la fin qui nous hante,
J'ai choisi pour compagne une mort bien vivante.

Auprès d'icelle je m'enivre nuit et jour :
Chaque nouvel instant, qui m'est grâce nouvelle,
Se glisse entre mes doigts en un battement d'aile.

François Tard
1988
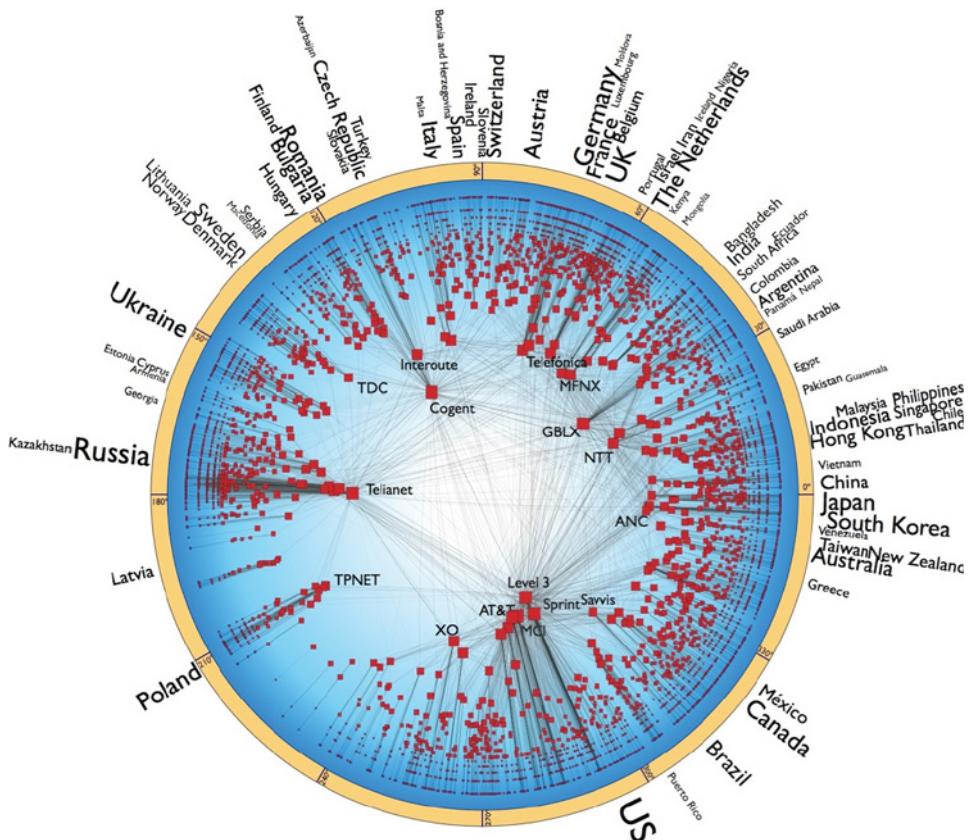
* Illustration - Internet traffic topological map.© CAIDA