Aalto University

CF Get Together

Design Factory Stage, 8.1.2019
Kirsi Peltonen, Aalto SCI Mathematics

Contents 8.1.2019

15:15 Intro to Crystal Flowers:

- DF staff intro: Kalevi Ekman
- Course schedule in a nutshell
- Greetings from EMMA: Reetta Kalajo
- Teachers of the course
- Content of the course
- Student groups
- Motivation for the group work

16:30 Refreshments

16:45 Group work

17:30 Wrap up

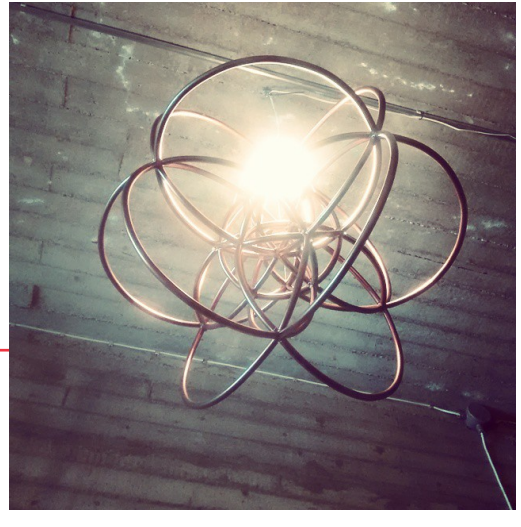
- Student group presentations & mind maps

17: 45 Homework

- Reflections

Course schedule in a nutshell

- **Jan 8th – April 11th** (periods III, IV) **lectures and groupwork on Tue & Thu 3pm - 6pm *mostly* at Design Factory Stage**
- **Workshop by Paul Jackson 19th-21st Feb** (ex week of period III)
- **April 11th on** (period V) **more independent group work: Tutoring available by appointment**
- **May 13th -20th building the exhibition at Tapiola Cultural Centre**
- **Opening 21st May 5pm !**
- **Final tasks by the end of May**



Lecturer in Mathematics: Kirsi Peltonen

- Responsible Teacher of the Course
- PhD, Docent in Math
- Geometric Analysis
- Mainstreaming Mathematics
- Visualizations

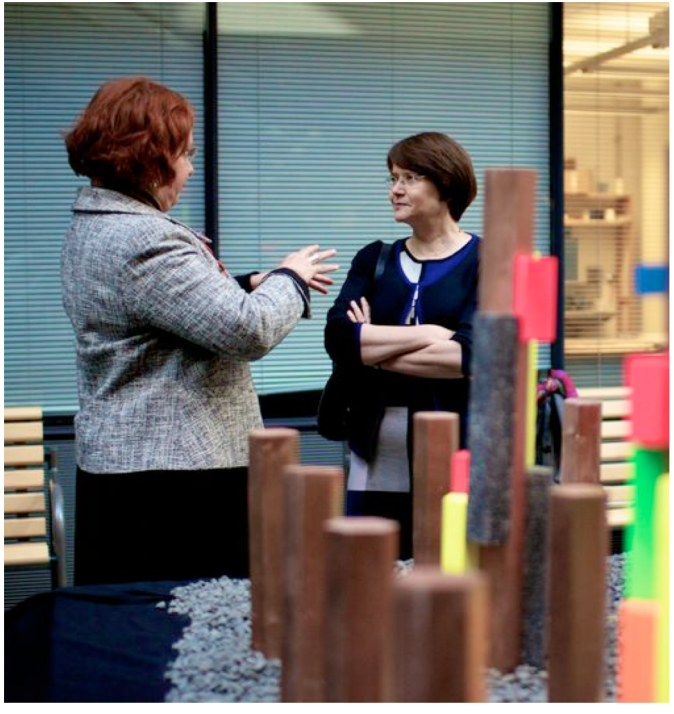


Photo: Eero Kaarlehto

Lecturer in Arts: Taneli Luotoniemi

- Master of Arts
- Doctoral student of Arts at Aalto
- Mathematics in Art
- Tilings, 4D, Knots

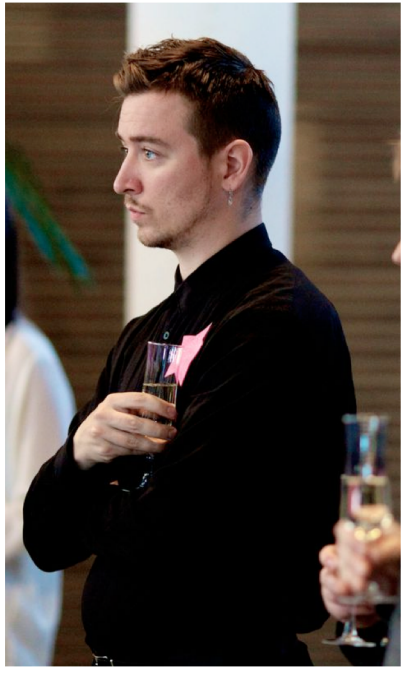


Photo: Eero Kaarlehto

Lecturer in Arts: Laura Isoniemi

- Master of Arts (Textiles)
- Art Pedagogy
- IDBM Pro studies
- Multi-disciplinary freelance designer
- Part time teacher at Aalto
- Tilings, Patterns, Foldings, Knots

Lecturer on Algorithmic Architecture: Toni Kotnik

- Professor of Design of Structures
- Arts, Design and Architecture
- PhD in Mathematics
- integration of knowledge from science and engineering into architectural thinking and the design process.

Lecturer on Algorithmic Art: Tapio ‘Tassu’ Takala

- Professor in computer science
- computer animation
- motion capture and analysis
- embodied/enactive interfaces

Teacher: Pablo Riquelme

- **Design Consultant/ Designer**
- **’I believe design can help us to generate empathy and positive interaction in urban settings and social structures.’**

Assistant: Markus Holste

- Interior Architect
- Exhibition design
- Furniture design and construction
- Assisting in design process

EMMA expertise for the exhibition

Reetta Kalajo
Chief Curator

Sami Supply
Production Manager

Arja Miller
Chief Curator

Visiting lecturer: Paul Jackson

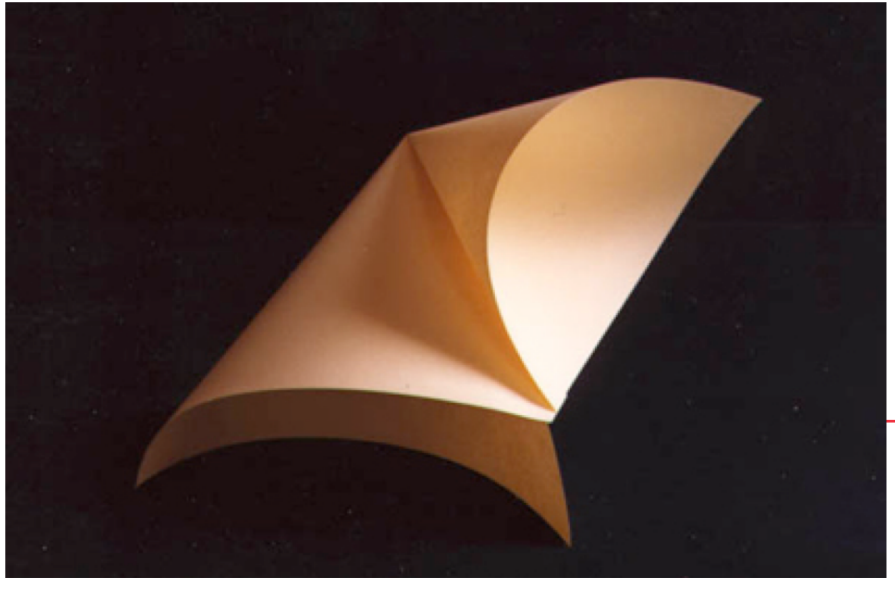
Workshop 19th -21st Feb 9am-6pm at DF Stage

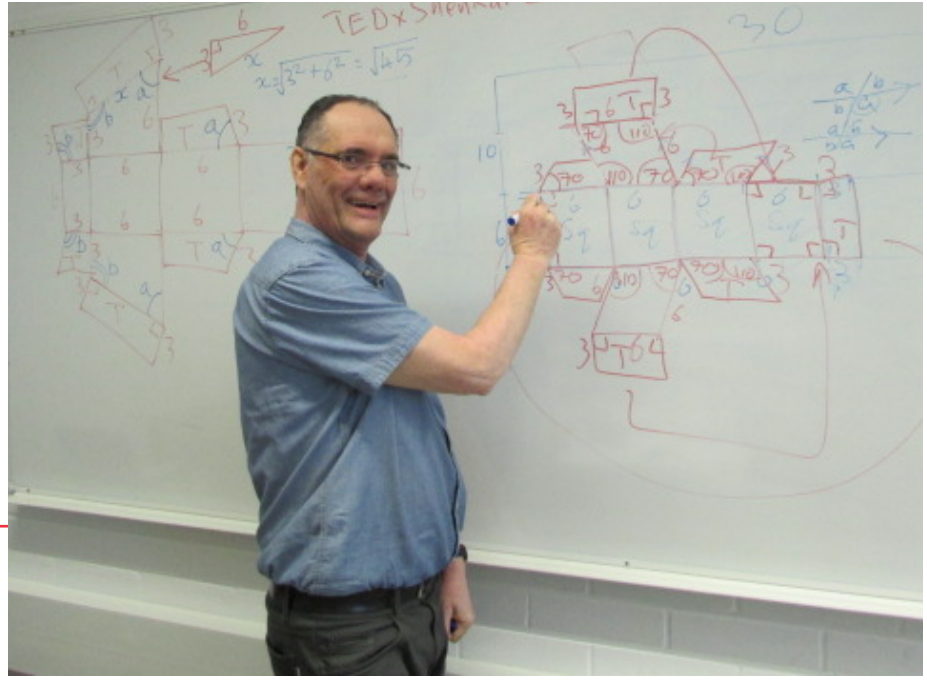
Negative and Positive Folded Forms as Hanging Sculptures

Public lecture 25th Feb 3pm at Aalto hall (Otakaari 1)

The Art and Science of Folding

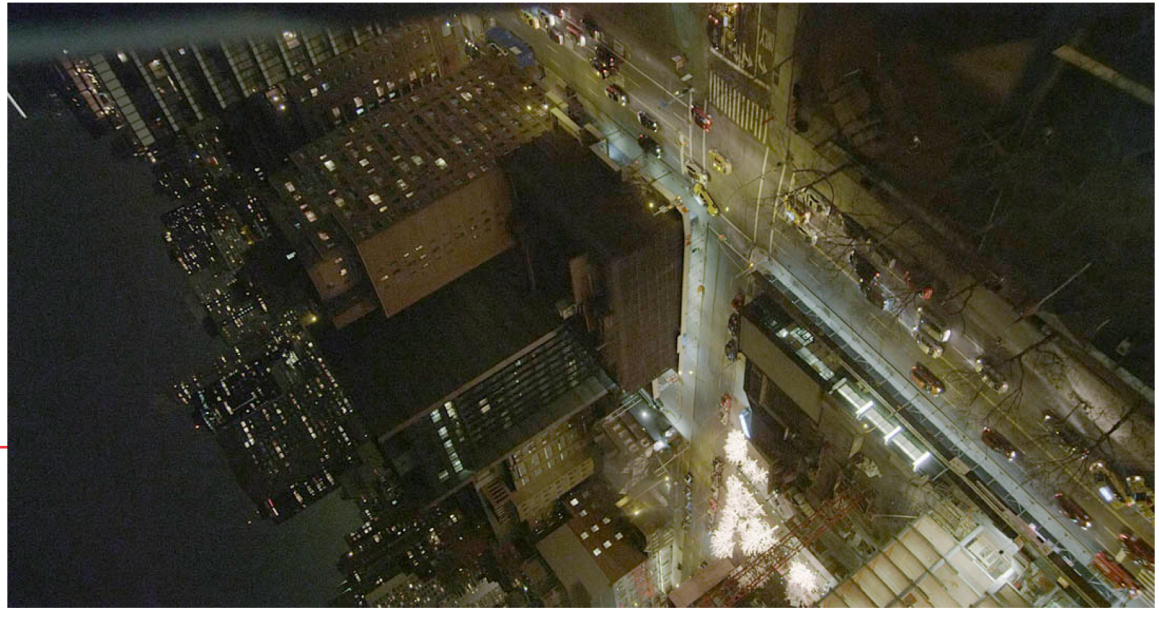
http://www.origami-artist.com/





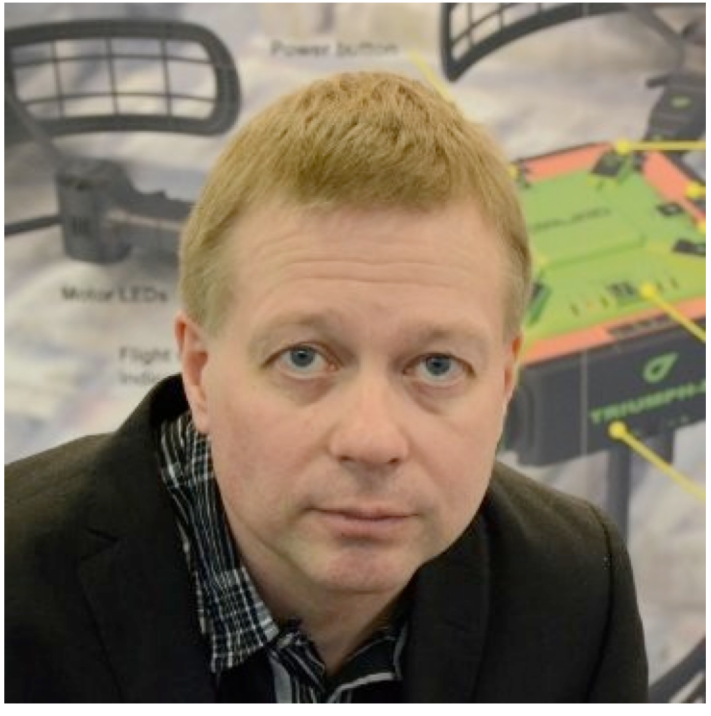
Visiting artist: Lauri Astala

- **MFA** (The School of the Art Institute of Chicago)
- **BFA** (Academy of Fine Arts , Helsinki)
- Studies in University of Industrial Arts and Electrical and Communication Engineering (HUT)
- More info see **https://www.lauriastala.com/**



Technology: Hannu Hyyppä team

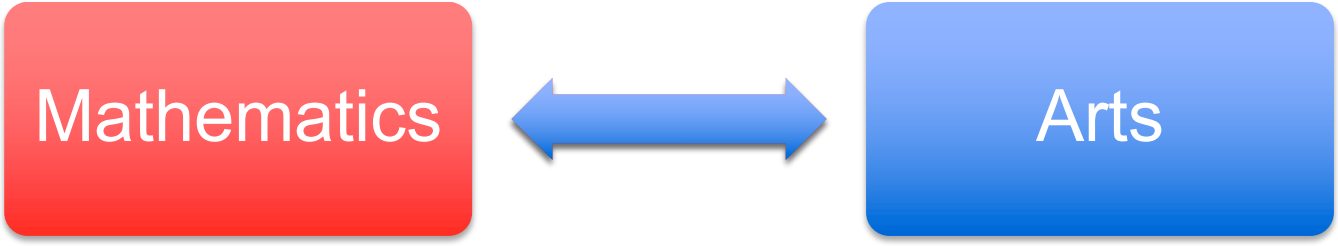
- **PoP at Aalto ENG** Measuring and Modelling for the Built Environment
- Integration of civil engineering, surveying, modern IT and sensors with knowledge management point of view
- Laser scanning CoE
- Virtual exhibition



Tentative Student groups ARTS(20), SCI (4), BIZ(4), ELEC(2), HU(1)

1. Felix Bade (SCI)
   Johanna Joentausta (HU)
   Andrea Mancianti (ARTS)
   Linda Mandell (ARTS)
   Anneliina Sipiläinen (BIZ)
2. You-Chia Chen (ARTS)
   Megan McGlynn (ARTS)
   Heikki Humberg (ARTS)
   Topi Nieminen (SCI)
   Tuula Turunen (BIZ)
3. Tomi Hyyppä (ARTS)
   Alisa Kurganova (ARTS)
   Yi-Chiao Tien (ARTS)
   Jannica Savander (ELEC)
   Landys Roimola (ARTS)
4. Sannimari Honkanen (ARTS)
   Nemanja Jovanovic (ELEC)
   Lauri Neuvonen (BIZ/SCI)
   Satu Riikonen (ARTS)
   Jonna Tuupainen (ARTS)
5. Punit Hiremath (ARTS)
   Pei-Yu Lin (ARTS)
   Ira Ottmann (BIZ)
   Marika Tervahartiala (ARTS)
   Iiro Törmä (ARTS)
   Saara Vestola (SCI)
6. Eva Gallegos Beltran (ARTS)
   Jennifer Greb (ARTS)
   Pinja Pessi (SCI)
   Vesa Putkonen (ARTS)
   Timo Räsänen (ARTS)

Goals



- **Interaction in both ways!**
- **Increase *understanding***
- **Useful tools (or recipes perhaps)**
- **New point of views and connections**
- **Current research perspective**
- **Critical point of view**

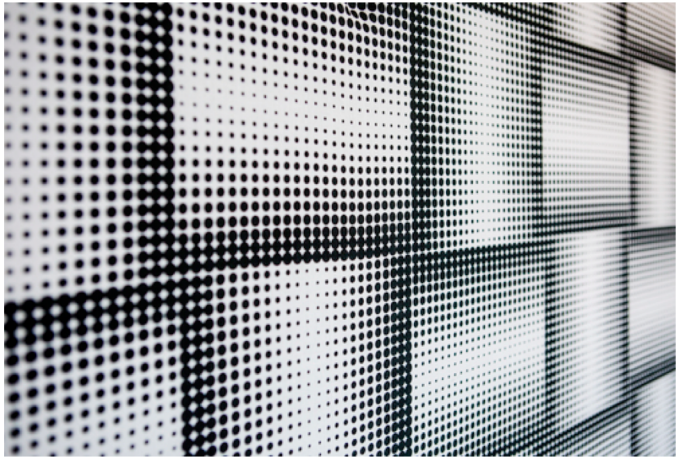


Photo: Päivi Kiuru

Mathematics and Arts minor courses

MS-E1000 Crystal Flowers in Halls of Mirrors (10cr, spring 2019)

UWAS-C0014 Spatial Structures (5 cr, period IV spring 2019)

MS-E1001 Shapes in Action (5 cr, period I fall 2020)

courses under continuous construction !

Math topics of the minor include

- Tilings (symmetries, classification)
- Polyhedrons (3D,4D)
- Models in geometry (spherical, Euclidean, hyperbolic)
- Surfaces
- Fractals and chaos
- Knots

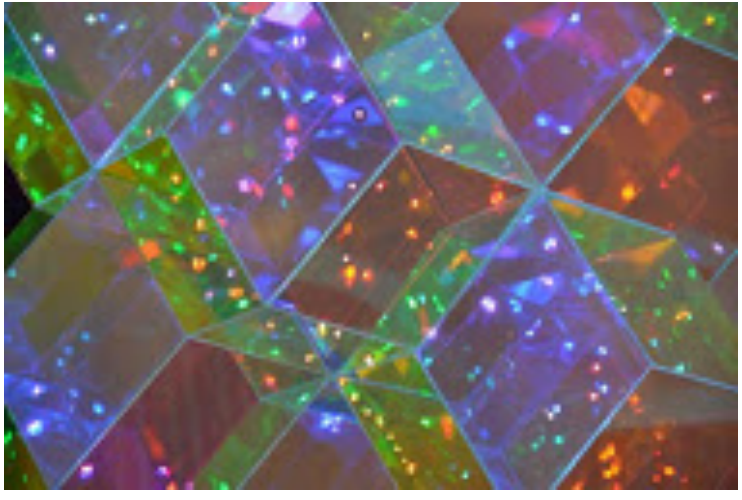
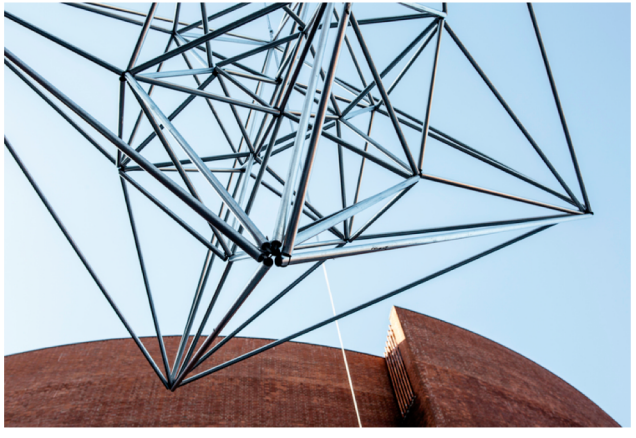


Photo: Viivi Livio

What are you supposed to do to gain 10cr?

Portfolio through MyCourses consisting:

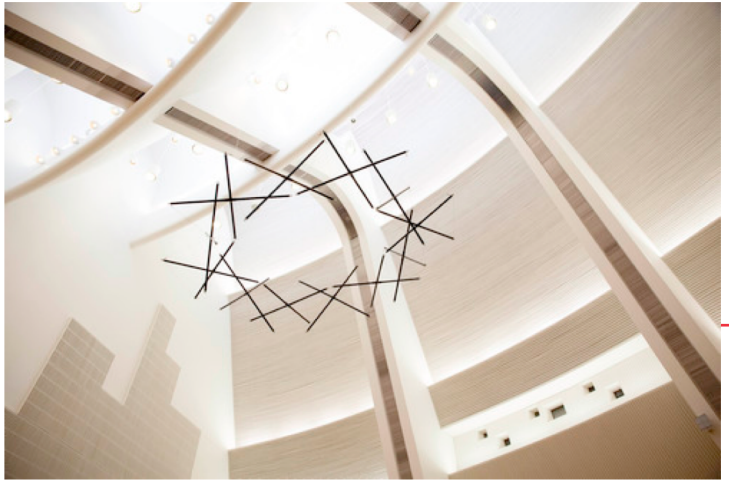
1. **Diary** (=weekly reflections and summary) (1/6)
2. **Exercises** (1/6)
3. **Project works** (2/3) include
   - A) Tasks and presentations
   - B) Documentation
   - C) Exhibition set up

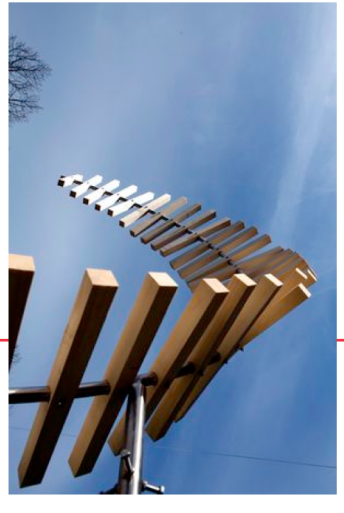


Assessment: individual efforts, collaboration in groups, peer review…

Some essential practical details

- *80 % of contact teaching mandatory during periods III-IV*
- *Lectures start at 3:15pm sharp! Usually instructions are given in the very beginning and they are NOT repeated for latecomers!*
- *Some help is always welcome in the beginning and at the end of the lecture to arrange /clean Stage and other used places.*
- *Documentation : Take pictures during the course and include them in your portfolio. Somebody willing/able to take high quality pictures? Extra credits and reputation ensured !*





Group work

- Take a big sheet of paper (or more) and pens. Introduce yourself and your interests to your group.
- List the things you find important in groupwork: strengths, development areas, possible roles etc.
- Do you know Espoo Cultural Centre and any of its activities?

- FIND AN APPROPRIATE NAME TO YOUR GROUP !

- Collect all data to a mind map and prepare to present major outcomes to others in 2 minutes/group

Homework

Reflections through MyCourses by Jan 15th

- How did you find the first week ?
- How did you find your group?
- How do you see your own role in the group ?
- List the features you find most important in successful group work

- **Huom** : Suomenkielinen opiskelija, vastaa mieluusti suomen kielellä ☺