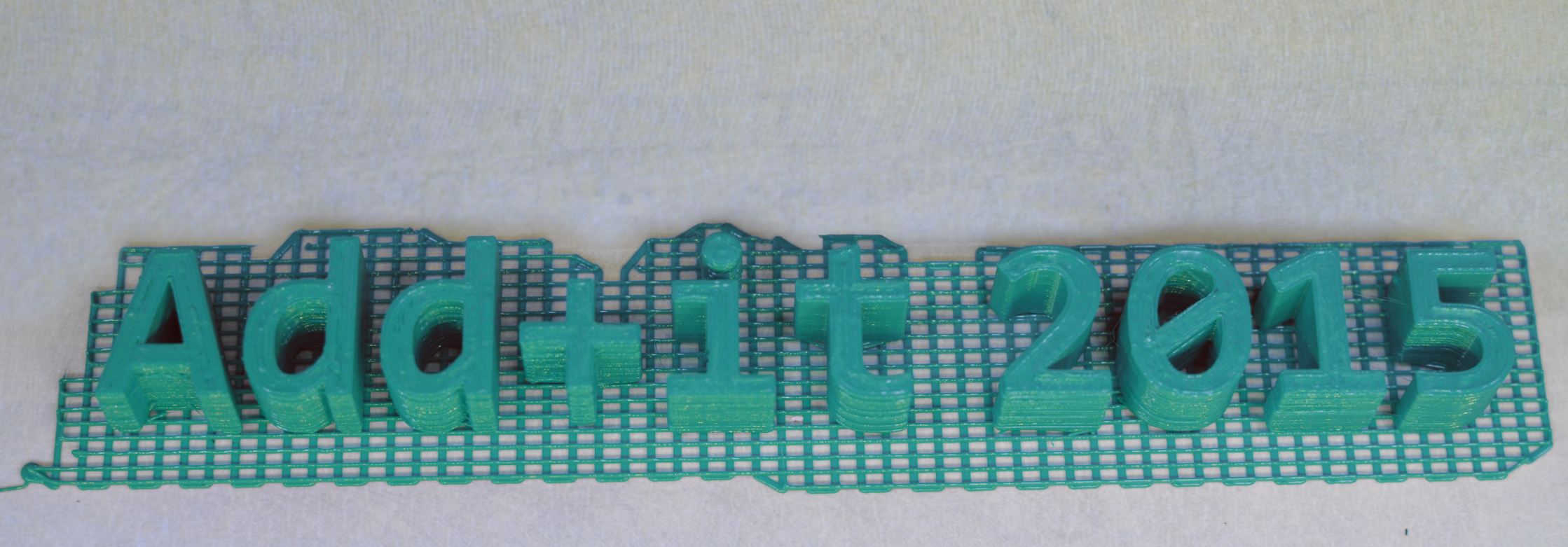


SYMPOSIUM ON ADDITIVE MANUFACTURING AND INNOVATIVE TECHNOLOGIES

September 10 – 11, 2015

Johannes Kepler Universität Linz

Science Park 3, 4040 Linz (AT)

ADDITIVE MANUFACTURING: TODAY AND TOMORROW

The revolution of conventional manufacturing started in 1986 when C. Hull patented the first stereolithography system and since then, methods, printers, and materials boomed up to nearly daily headlines of new developments. Later, terms changed from 3D-printing to additive manufacturing, which should address applications with industrial importance. Former 3D-printing as a university research subject or interest of home constructors changed to industrially applicable machines providing commercially usable parts. Today, additive manufacturing is present in various areas from medical applications via automotive and aircraft industry to aerospace engineering. Different printers and technologies offer possibilities to process plastics, metals, and even high-performance ceramics. The revolution is ongoing and affects any additive manufacturing topic. Areas of process development to speed up building objects, providing higher surface accuracy, multimaterial printing, functional materials, and many more are addressed that will keep 3D-printing and additive manufacturing enthralling and fascinating.

ADD+IT 2015

The Add+it 2015 offers a platform for science and industry to discuss topics all across additive manufacturing and innovative technologies. International experts from more than ten different countries from four continents will share their knowledge in several talks and five workshops to show what additive manufacturing offers today and what can be expected in the future. Scientific talks on Thursday, September 10, are followed by the symposiums dinner held at the “Pöstlingberg Schlössl”. The transfer is operated by the so-called “Pöstlingbergbahn”, one of Europe’s steepest cogwheel-free railway with a history of more than 110 years. On Friday, September 11, plenary lectures and six parallel workshops will complete the Add+it 2015 program. The workshops will provide opportunities to share ideas and discuss technical details related to additive manufacturing. On Friday afternoon a farewell accompanied by jazz music will offer room for dialogue between the Add+it attendees – take the opportunity to meet experts from R&D and industry!


(C) HERTHA HURNAUS

LOCATION


(C) LINZ TOURISMUS - ASIGALOV

SOCIAL ACTIVITIES


(C) PÖSTLINGBERG SCHLÖSSL

SYMPOSIUM DINNER


(C) PROFACTOR

EXHIBITION

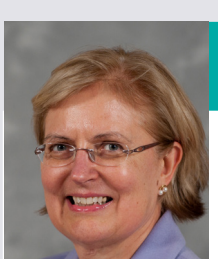
KEYNOTE SPEAKERS*

KEYNOTE SPEAKERS

Prof. Hidemitsu Furukawa

Yamagata University, JP

3D printing of soft matter, wet systems, and cross-linked hydrogels



Prof. Elsa Reichmanis

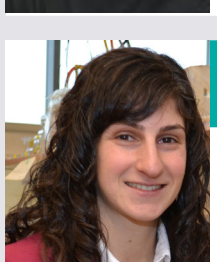
Georgia Institute of Technology, US

Polymeric and nanostructured materials for advanced technologies

Dr. Thomas I. Madura

NASA Goddard Space Flight Center, US

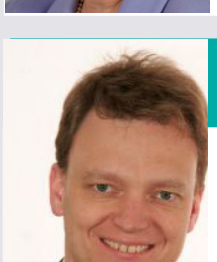
3D Printing meets astrophysiscs: A new way to visualize and communicate science



Ass. Prof. Jessica Schiffman

University of Massachusetts Amherst, US

Biopolymers and phenolic compounds, interface between soft materials and microbes, structure-property relationships



Prof. Thomas Klar

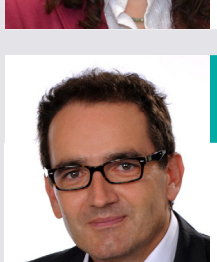
Johannes Kepler University Linz, AT

Optical sub-100 nm lithography

Prof. Dr. Christiane Luible

Design Hochschule Genf, CH

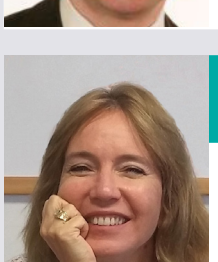
Digital Fashion



Prof. Jürgen Stampfl

TU Wien, AT

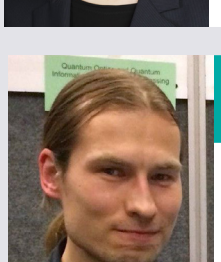
High performance materials for lithography based additive manufacturing



Dr. Eynat Matzner

Stratasys, IL

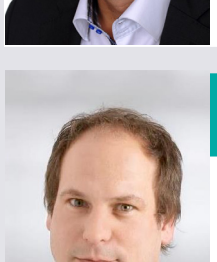
Digital Materials - the promise of multi material 3D printing



Dr. Mangirdas Malinauskas

Laser Research Center of Vilnius University, LT

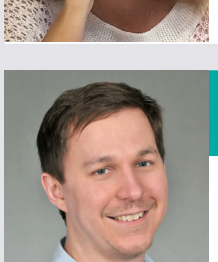
Nano and micro-scale manufacturing options with two photon polymerization technique



Dr. Christian Hadeyer

Lawfirm Prof. Hintermayr & Partner, AT

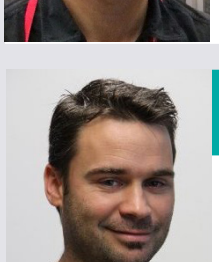
Legal issues of 3D printing



Dr. Markus Hatzenbichler

Fotec, AT

Additive Manufacturing of metallic parts for space applications using Laser Beam Melting



Bernhard Reitinger

Research Center for Non Destructive Testing, AT

Non-destructive testing in 3D printing

* confirmed

WORKSHOPS

Six parallel sessions provide space for an open exchange between industry and research.
Several short presentations in each workshop are the guideline for discussion, show the state-of-the-art and break ground for further questions.

WS1: Component Design and Development

WORKSHOP 1

- Martin Reiter, Johannes Kepler University Linz
  „Enhancing design and development processes with additive manufacturing“
- Dan Ko, Shapeways
  „Additive Manufacturing and the future of consumer products“
- Thomas Kitzler, Altair
  „How to unlock the true potential of additive manufacturing?“
- Christian Seidel, Fraunhofer IWU
  „BioTRIZ – Process know-how, design methodologies and software tools for enhanced Additive Manufacturing“
- Daniel Kopp, Bibus
  „The right technology for your requirements“
- Alexander Hildebrandt, Festo
  „Nature inspiration for automation“

WS2: Additive Micro/Nano-Manufacturing

WORKSHOP 2

- Michael Mühlberger, PROFACTOR
  „Additive Micro/Nano-Manufacturing: today and tomorrow“
- Oliver Refle, Fraunhofer IPA
  „New ways of producing smart electro-mechanical micro-systems“
- Marc Verschuuren and Remco van Brakel, Philips
  „Conformal imprinting in the broadest sense of the word“
- Markus Dickerhof, Karlsruhe Institute of Technology
  „Smart production of microsystems based on laminated polymer films“

WS3: Materials Development (with Focus on Polymers)

WORKSHOP 3

- Fernando de la Vega, PV nanocells
  „General regarding materials UV curing and sintering with our Ag and Cu particles“
- Andreas Haider, Wood K-plus Zentrum
  „Naturale fiber reinforced FDM materials“
- Stefan Baudis, TU-Wien
  „Advanced Photopolymers for High Resolution Additive Manufacturing“
- Ilias Illiopoulos, Arkema/Sartomer
  „ARKEMAS expertise in UV curable high resistant acrylates for PolyJet 3D printing“
- Eynat Matzner, Stratasys
  „Digital Materials“

WS4: Visionary Applications in Art and Design

WORKSHOP 4

- Christiane Luible, Design Hochgschule Genf
  „Digital Fashion“
- Kunigunde Cherenack, PHILIPS, Lightning solutions
  „PHILIPS' planned business model related with 3D printing of luminaires“
- Katia Glossmann and Xavier Tutó, GrowthObjects
  „Expertise related with responsive custom design generation and web-based platforms, offering pre-established possibilities for co-designing according to the features of each design“
- Manuel Walch, Ars Electronica Center
  „Fablab Movement“

WS5: Metal Additive Manufacturing

WORKSHOP 5

- Jochen Giedenbacher, University of Applied Sciences Upper Austria
  „Quality improvement of components and expanding the material spectrum by tempering the building area in 3D metal printing“
- Markus Hatzenbichler, Fotec
  „Additive Manufacturing of metallic parts for space applications using Laser Beam Melting“
- Martijn Witteveen, Blok Group
  „Additive Manufacturing as supply chain optimisor“
- Joachim Zettler, AIRBUS APWORKS
  „Serial applications of additive manufacturing @ Airbus“

WS6: Frauen in die Medizintechnik

WORKSHOP 6

- Sabine Hild, Institute of Polymer Science, JKU
- Jessica Schiffman, University of Massachusetts-Amherst, USA
- Alexandra Heindl, Bandagist Heindl
- Marianne Hollensteiner, FH OÖ
- Gerda Estl, FH Gesundheitsberufe OÖ GmbH

The participants of this workshop will discuss the various options of the application of generative manufacturing systems and machines for medical applications.

PROGRAM*

September 10, 2015

Add+it (part 1)

12:00 Registration

13:00 Opening, welcome & agenda
- Landesrätin Mag. Doris Hummer
- G. Anderst-Kotsis, Vice-Rector for Research, JKU
- Z. Major, JKU IPPE
- M. Mühlberger, PROFACTOR

13:30 Session I
- T. A. Klar, Johannes Kepler University Linz, AT
- J. Stampfl, TU Wien, AT
- H. Furukawa, Yamagata University, JP
- E. Matzner, Stratasys, IL

15:30 Break

15:45 Session II
- C. Hadeyer, Lawfirm Prof. Hintermayr & Partner, AT
- E. Reichmanis, Georgia Institute of Technology, US
- J. Schiffmann, Uni. of Massachusetts Amherst, US

17:15 Discussion, Networking, Exhibition

18:30 Closing Day 1

18:45 Transfer to social event location

19:45 Symposium's Dinner: Pöstlingberg Schlössl

22:45 Transfer back to main square

September 11, 2015

Add+it (part 2)

09:00 Opening, welcome & agenda
- M. Mühlberger, PROFACTOR
- Z. Major, JKU IPPE

09:15 Session III
- B. Reitinger, Research Center for Non Destructive Testing, AT
- M. Hatzenbichler, Fotec, AT
- M. Malinauskas, Laser Research Center of Vilnius University, LT

10:30 Break

10:40 Opening: A. Pogany, BMVIT
Parallel Workshops

WS1: Component Design and Development

WS2: Additive Micro/Nano-Manufacturing

WS3: Materials Development (with Focus on Polymers)

WS4: Visionary Applications in Art and Design

WS5: Metal Additive Manufacturing

WS6: Frauen in die Medizintechnik**

12:00 Buffet lunch

13:00 Closing Keynote Session
- T. I. Madura, NASA's Goddard Space Flight Center, US

13:30 Summary, Discussion

14:00 Closing Day 2

September 11, 2015

14:00 Farewell and On-site visit

Discussions, networking, and goodbyes while listening to live jazz music.
On-site visits are also possible - guided tour through laboratories at JKU campus.

* the content is subject to change

** Frauen in die Technik (FIT) Program - Women in Engineering and Sciences is initiated by the Johannes Kepler University Linz to encourage young women to pursue academic degrees in fields of engineering and science.

ORGANIZER

PROFACTOR is a non-profit, applied research company located in Steyr and Vienna and is involved in research and development for industrial production technologies. PROFACTOR focuses its research on two main topics. The progress in industrial assistance systems and the establishment of additive micro/nano manufacturing is for the competitiveness of the „Factories of the Future" of fundamental importance. PROFACTOR acts as an interface between science and industry. Since the year 1995 PROFACTOR has demonstrated in more than 1,600 projects what can be created with applied production research. More than 400 customers, ranging from small businesses to enterprises have trusted PROFACTOR so far.

PROFACTOR GmbH
Functional surfaces and nanostructures
Dr. Klaus Bretterbauer
Im Stadtgut A2
A-4407 Steyr-Gleink
www.profactor.at

The Institute for Polymer Product Engineering (IPPE) was established in 2009 in the frame of the Polymer Technology and Engineering Program at the Johannes Kepler University Linz (JKU). The institute contributes to the BSc and MSc education programmes and to research activity of the faculty on the field of polymer product engineering. In general, the institute deals with the various aspects of the design, the virtual and real prototyping and the structural integrity assessment of components made from various polymeric materials. The real prototyping covers the application of various generative manufacturing methods, the investigations of the materials used and the development of novel design methodologies.

Institute of Polymer Product Engineering
Johannes Kepler Universität Linz
Prof. Dr. Zoltan Major
Science Park 2, 0174
A-4040 Linz
www.jku.at/ippe

SPONSORS

ADMINISTRATIVE AND GENERAL INFORMATION

Registration and Fees

Information on registration is available on the conference website.

The registration form should preferably be completed online: www.addit2015.org

Registration fees and included services	Price (excl. 20% VAT) [EURO]	Registration possible until:	Accommodation	Car parking fee	Official project dinner Wed: September 09, 2015 19:00 – open end	BIG & project meetings Thu: September 10, 2015 09:00 – 12:00	BIG & project lunch September 10, 2015 12:00 - 13:00	**Add+it 2015** (Part 1) Thu: September 10, 2015 13:00 – 18:30	Conference Dinner Thu: September 10, 2015 20:00 – open end	**Add+it 2015** (Part 2a) Fri: September 11, 2015 09:00 – 12:00	Buffett lunch Fri: September 11, 2015 12:00 - 13:00	**Add+it 2015** (Part 2b) Fri: September 11, 2015 13:00 - 15:00	Farewell*** Fri: September 11, 2015 15:00 – 18:00
Participant of project meeting	210,-	Sept 3, 2015	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BIG member * / VTPÖ member **	320,-	Sept 3, 2015	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Regular participants	380,-	Sept 3, 2015	–	✓	–	–	–	✓	✓	✓	✓	✓	✓
Students	150,-	Sept 3, 2015	–	✓	–	–	–	✓	✓	✓	✓	✓	✓
Plenary speakers	0,-	Sept 3, 2015	–	✓	✓	–	✓	✓	✓	✓	✓	✓	✓

* please find more information about the NILchallenges Business Interest Group (BIG) here: www.nilaustria.at
** please find more information about VPTÖ here: www.vptoe.at
*** incl. a possible onsite visit at JKU Labs

Travel information

JKU Science Park 3 , 4040 Linz (AT)

BY TRAIN

There is a very good service of direct trains to Linz from Vienna (2 hours), Salzburg (1.5 hours), Munich (2.5 hours) and other international destinations. Exit Linz main train station. To reach the conference venue (Science Park 3) take the tram 1 or 2 to the station "Linz JKU I Universität – University". The conference venue is located approximately 200 m on the right side. Duration from main train station: approx. 25 min.
>> Train schedule

BY PLANE

Arrival at >> Linz Airport:
Distance: ~ 13 km
Either you take a taxi: ~ 25 min. or the public bus number 601, change at the train station to tram 1 or 2:
~ 30min. Exit "Linz JKU I Universität – University""
>> Train and Bus schedule

BY CAR

Follow roadway A7, take exit "Linz Dornach". Distance: ~ 2,5 km
Follow the street "Altenbergerstraße". The Conference venue is located on the right hand side after about 1 km. A parking indoor space is available underneath the conference building. Please follow the signs at the conference venue.
>> Google Maps

Imprint
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