

Press Release

April 25, 2023

BASF Forward AM to Highlight New Ultrasim® 3D Lattice Engine at Rapid + TCT Trade Show in Chicago

BASF Forward AM will be at RAPID + TCT 2023 in Chicago, Illinois, from May 2nd – 4th. A highlight of this event will be the introduction of Forward AM's latest software solution, Ultrasim® 3D Lattice Engine, which allows users easy access to a program designed to explore different lattice geometries and implement them into product design cycles. Powered by Hyperganic, this solution offers a wide array of lattice patterns, each of which has been tested and validated for different application groups. Information about this innovative software as well as a wide array of materials and parts will be on display at booth #2445. The opportunity to attend the following events will also be available.

- » **Beer and Beams Lattice Engine Workshop on Tuesday, May 2nd from 4:00 – 6:00 pm at the Forward AM Booth (#2445)** – Guests will be offered the opportunity to try out the new Ultrasim® 3D Lattice Engine, grab a beer and learn about this new software solution.

- » **Tech Talk on One-Click to Custom Lattices with Ultrasim® 3D Lattice Engine on Wednesday, May 3rd at 1:30 PM at booth #4230** – Florian Fischer, Head of Service & Solutions at BASF Forward AM together with Stijn

Paridaens, CEO of Ziggzagg, will demonstrate the newly launched Ultrasim® 3D Lattice Engine software which enables users to instantly generate validated lattices for different applications.

Lattice Generation Made Easy with Ultrasim® 3D Lattice Engine

Whether designing a new footwear product, a seat, or protective sporting equipment, there is a lattice geometry that meets the unique requirements of each application. Users can access an extensive lattice library in form of physical test pads, which is the first step to experiencing the wide range of properties lattices can achieve. From there, the user can then choose the lattice that best suits their part requirements and input that information into the software tool to create a digital overview of the mechanical properties.

After inputting the desired application area, the software finds lattice designs validated for similar use cases then uses comprehensive modeling to automatically generate lattice parts that fit the user's design parameters. Powered by Hyperganic's assembly-level voxel engine, the lattice parts are generated and modulated within seconds.

The [Ultrasim® 3D Lattice Engine](#) puts Forward AM's years of 3D lattice research and validation within reach, allowing users to facilitate the creation of cutting-edge products that require high-performance lattices. This innovative software is bringing design and production to engineers and other user untrained in latticing through values that are threefold:

1. Make it EASY to use: Generate custom lattice in minutes
2. Make it WORK: Pre-engineered lattices adapted to the material and application
3. Make it AFFORDABLE: One of the most cost-effective generation software programs available

Join us at [RAPID + TCT 2023](#) in Chicago, Illinois from May 2nd – 4th to meet the expert team at Forward AM and learn more about the Ultrasim® 3D Lattice Engine and our extensive materials portfolio.

About BASF 3D Printing Solutions

BASF 3D Printing Solutions GmbH, headquartered in Heidelberg, Germany, is a 100% subsidiary of BASF New Business GmbH. It focuses on establishing and expanding the business under the Forward AM brand with advanced materials, system solutions, components and services in the field of 3D printing. BASF 3D Printing Solutions is organized into startup-like structures to serve customers in the dynamic 3D printing market. It cooperates closely with the global research platforms and application technologies of various departments at BASF and with research institutes, universities, startups and industrial partners. Potential customers are primarily companies that intend to use 3D printing for industrial manufacturing. Typical industries include automotive, aerospace and consumer goods. For further information please visit: www.forward-am.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 111,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €87.3 billion in 2022. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.

About Hyperganic

Hyperganic Group is a multinational deep technology company with offices in Munich, Singapore, China and Dubai. Here at Hyperganic, we believe in being the catalyst of change in engineering innovation for a sustainable future. Our software, Hyperganic Core, powers the creation of objects and structures that are as complex and functional as nature. Through Algorithmic Engineering, we seek to redefine the manual role of the engineer and enable mass production in digital factories using industrial 3D printing. We are working with leading companies and research organizations in the U.S., Europe, and Asia, in a broad variety of fields. For more information, visit www.hyperganic.com.