

## Conference News | What you need to know

**Munich** We are pleased to present you two Virtual Coffee Breaks today. At 12:00 (CEST) Markus Zeis invites you to the topic "Electrochemical Machining (ECM) of Safety Critical Components @ MTU".

At 17:00 (CEST), the German Research Foundation (DFG) will discuss "Research and Funding Opportunities in Germany" with you. Talk virtually face to face with experts from the Alexander von Humboldt Foundation, the German Academic Exchange Service, the German Research Foundation and the Fraunhofer Gesellschaft. Get in touch and get your individual questions answered!

Watch the Opening Session's speeches of the hosts of the GA, the CIRP president and Dr. Nedeljkovic (BMW) and Mr. Wagner (MTU) in the Media Library.

## News of our Supporters and Corporate Partners

**Munich** "Research in Germany" is an initiative funded by the German Federal Ministry of Education and Research. It presents Germany as a country of research and innovation and provides a forum for international exchange and cooperation. At CIRP, the initiative presents the production engineering research landscape in Germany. Find out all about production engineering research in Germany at our booth. Learn more about applied research at the Fraunhofer-Gesellschaft and all you need to know about various funding programmes of the Alexander von Humboldt Foundation, the German Academic Exchange Service, and the German Research Foundation. You can get in touch with representatives in our Virtual Coffee Break. For more information, check our page [www.research-in-germany.org/cirp2021](http://www.research-in-germany.org/cirp2021) in the following weeks.



News of our partner **ModuleWorks**: Did you know that ModuleWorks coordinated an FP7 project with Israel and Romania? Follow the link to find out more: [www.moduleworks.com/cirp2021](http://www.moduleworks.com/cirp2021)

## Leisure | The Oktoberfest

**Munich** The annual Oktoberfest in Munich is the world's largest folk festival and has a long history. Locally, it is called d'Wiesn, after the colloquial name for the fairgrounds, Theresienwiese. It traditionally starts with a parade and the Mayor tapping the first barrel of beer at 12:00 o'clock and shouting the time-honoured words 'O'zapft is!'. The parade is led by the Münchner Kindl, followed by the incumbent mayor of Munich in the Schottenhammel family carriage since 1950. This is followed by the decorated horse carriages and floats






### 70 years of Munich | 1971–1980

**1971:** The first 186 Munich students moved into the Olympic women's village. Out of around 700 applicants, only 400 students could be considered, and for 111 Deutsche Mark (around 57 €, US-\$ 67, 7,346 Yen) monthly rent they had the opportunity to live in the accommodation of the female Olympic participants.

**1974:** In the Olympic Stadium, the German national soccer team defeated the team of the Netherlands with 2:1 goals in the final match of the World Cup.

### Weather

-  Munich: 19 °C, rainy
-  Barcelona: 26 °C, cloudy
-  Oklahoma: 37 °C, sunny

### Today's paper sessions

STC C | Cutting

STC E | Electro-Physical and  
Chemical Processes

STC F | Forming

STC O | Production System and  
Organizations

STP S | Surfaces

### Highlights of today's programme

13:10 | Keynote F  
Room 'Fraunhofer'

14:40 | Keynote S  
Room 'ModuleWorks'

### Today's Virtual Coffee Breaks

12:00 | Electrochemical Machining  
of Safety Critical  
Components @ MTU,  
MTU  
Room 'MTU'

17:00 | Research and Funding  
Opportunities in Germany,  
DFG  
Room 'Festo'

of the breweries and the carriages of the other restaurateurs and showmen. The music bands from the beer tents accompany the parade. Running from mid or late September to the first Sunday in October, with more than six million people from around the world attending the event every year, the Oktoberfest is an important part of Bavarian culture since the year 1810. To keep the



Oktoberfest, and especially the beer tents, amicable for the elderly and families, the concept of the "quiet Oktoberfest" was developed in 2005. Until 18:00 o'clock, the orchestras in the tents only play brass music, for example traditional folk music. At the Oktoberfest, guests drink beer, enjoy Bavarian specialties or experience one of the many attractions of the festival together with friends and their family.



## Culture | Bavarian beer and breweries

**Bavaria** The Germans are not considered the inventors of beer, but through the world famous Oktoberfest in Munich, beer has become one of Germany's ultimate trademarks. Bavaria plays a very special role in this respect. Almost half of all German breweries are located in Bavaria. 647 brewhouses are at home here. Bavaria therefore has the highest density of breweries in the whole of the Federal Republic, especially in the region of Upper Franconia. With 167 breweries, the administrative district is the number one beer region, having the oldest still existing brewery in the world, the Bayerische Staatsbrauerei Weihenstephan. This brewery was founded over 1,000 years ago as a Benedictine monastery brewery in 1040 and is located on the Weihenstephan hill in Freising, about 40 km from Munich. It is surrounded by the still young TUM School of Life Sciences, resulting in an interplay between tradition and the modern. Anyone interested in the general process of making beer can take part in one of the numerous brewery tours offered throughout Bavaria. Thanks to Duke Wilhelm IV of Bavaria and his brother Ludwig the X, beer brewed in Germany has been subject to the Bavarian Purity Law since 1516. Beers brewed in accordance with the Purity Law may therefore not contain any ingredients other than water, malt, hops and yeast. The Bavarian brewing tradition was even elevated to the status of a Bavarian intangible cultural heritage in 2015. This award underlines how closely the brewing industry is linked to Bavarian culture and tradition, according to the President of the Bavarian Brewers' Association, Friedrich Düll. Besides beer festivals and beer gardens, the pub culture is firmly anchored in Bavaria. Meeting in the late morning for a so-called "Frühschoppen", a social gathering in a pub, is quite common in Bavaria. No wonder the per capita consumption of beer in Bavaria is well above the national average of 102 liters at 130–135 liters per year (2018).



### Bavarian Language | Bavarian vs. English

O'zapft is [ootsopft is] | it's tapped  
Weizn [waitzn] | wheat beer

'etz a Weizn im Biergardn. Des waarad 's.

*Now a wheat beer in the beer garden.  
That would be great.*

### Bavarian food | Weisswurst

Of course, the Bavarian could eat his veal sausage with sweet mustard and pretzels every day, as a small mid-morning snack, because as the saying goes: The veal sausage must not hear the twelve o'clock bell!

Veal sausages are eaten warm, but they are not cooked!

1. To heat the veal sausage, a pot of water is brought to a boil.
2. When the water is bubbling, the lid is removed and the stove temperature is turned down or off.
3. As soon as the water stops boiling, the traditional sausages are put into the pot and the lid is put back on.
4. Depending on the quantity, ten minutes may pass before all the white sausages are evenly warmed through.

Be careful not to turn up the temperature in impatience! When the white sausages boil, they will burst!



### 70 years of Munich | 1971–1980

**1977:** Joseph Ratzinger, the new Archbishop of the Archdiocese of Munich and Freising, receives the episcopal consecration in the Liebfrauentom.

**1980:** The Bavarian Senate unanimously supports a subway connection for the Technical University (TU) site in Garching.