



# Fracmeet 2021: Understanding Material Failure: One Hundred Years of Griffith's theory

8-11 March, 2021

## 1. About

Understanding material failure, from macroscopic predictions of structural disintegration to microscopic framework of damage nucleation and propagation, remains a central challenge in a wide range of disciplines. A. A. Griffith, exactly hundred years ago, first proposed an energy-balance criterion for understanding damage propagation in brittle materials. The field has progressed considerably since then. The current challenges and techniques, spanning from designing self-healing materials to use of statistical learning in failure predictions, calls for new insights from experimental observations and theoretical studies, much of which has remained open questions.

The workshop is a continuation of earlier workshops, titled Fracmeet (<https://www.imsc.res.in/~fracmeet/>), that have been held for the last several years.

The details of last year's meeting can be found here: <https://srmmap.edu.in/accms-2020/symposium-fracmeet-2020/>

Fracmeet 2021 will be organized jointly by:

Department of Physics, SRM University – AP,  
The Institute of Mathematical Sciences, Chennai, and  
The Indian Institute of Technology, Madras

during 8-11 March 2020 via online mode.

## List of Speakers:

- Stefano Zapperi (<http://www.smmlab.it/>)  
(University of Milan, Italy)
- Michael Zaiser (<https://www.wv.tf.fau.eu/person/michael-zaiser/>)  
(Friedrich-Alexander-Universität, Fürth, Germany)
- Thibaut Divoux (<https://nnf.mit.edu/people/thibaut-divoux>)  
(ENS Lyon, France)
- Alex Hansen (<https://www.ntnu.edu/employees/alex.hansen>)  
(NTNU, Norway)
- Sivasambhu Mahesh (<http://www.iitk.ac.in/meold/faculty/sivasambhu.html>)  
(Indian Institute of Technology Madras, India)
- Mikko Alava (<https://people.aalto.fi/mikko.alava>)  
(Aalto University, Finland)
- Ian Main (<https://blogs.ed.ac.uk/imain/>)  
(University of Edinburgh, UK)

- Kaushik Viswanathan (<https://mecheng.iisc.ac.in/people/koushik-viswanathan/>)  
(Indian Institute of Science, Bangalore, India)
- Lucas Goehring (<https://www.ntu.ac.uk/staff-profiles/science-technology/lucas-goehring>)  
(Nottingham Trent University, UK)
- Takahiro Hatano (<http://noneq.ess.sci.osaka-u.ac.jp/hatano/>)  
(University of Osaka, Japan)
- Stephane Santucci (<http://perso.ens-lyon.fr/stephane.santucci/WebPage/Home.html>)  
(ENS Lyon, France)
- Renault Toussaint (<http://eost.unistra.fr/renaud/>)  
(University of Strassbourg, France)

Organisers:

Conveners:

Soumyajyoti Biswas (SRM University – AP) (<https://srmap.edu.in/faculty/dr-soumyajyoti-biswas/>)  
([soumyajyoti.b@srmap.eu.in](mailto:soumyajyoti.b@srmap.eu.in))

Anuradha Banerjee (IIT Madras) (<https://sites.google.com/view/anuradhabanerjeeiitm/home>)  
([anuban@iitm.ac.in](mailto:anuban@iitm.ac.in))

Purusattam Ray (IMSc) ([https://www.imsc.res.in/purusattam\\_ray](https://www.imsc.res.in/purusattam_ray))  
([ray@imsc.res.in](mailto:ray@imsc.res.in))

Local Organizing committee:

Mallikarjuna Rao Motapothulla (SRM University – AP) (<https://srmap.edu.in/faculty/dr-mallikarjuna-rao-motapothula/>)

Ranjit Thapa (SRM University – AP) (<https://srmap.edu.in/faculty/prof-ranjit-thapa/>)

Registration link:

<https://srmap.zoom.us/meeting/register/tJEvcu6vpjgqG9WN09CqHoLdC-zYX8bzplqo>

**Opening: March 8, 13:45**

	<b>14:00-15:00</b>	<b>15:00-16:00</b>	<b>16:00-16:30</b>	<b>16:30-17:30</b>
<i>March 8</i>	S. Zapperi	M. Zaiser	Break	T. Divoux
<i>March 9</i>	A. Hansen	S. Mahesh		M. Alava
<i>March 10</i>	I. Main	K. Viswanathan		L. Goehring
<i>March 11</i>	T. Hatano	S. Santucci		R. Toussaint

**Closing: March 11, 17:30**

All time in IST (UTC+05:30)