Fibre-dominated strength of multidirectional laminates

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Workshop series

“How do we define and measure strength of a composite?” – 09/10/2020
www.bristol.ac.uk/engineering/news/2020/composite-strength-workshop.html

“How measuring UD tensile strength and the factors affecting it” – 23/03/2021
www.bristol.ac.uk/engineering/news/2021/tensile-strength-workshop.html

“How measuring UD compression strength and the factors affecting it” – 05/10/2021

“How measuring shear strength and the factors affecting it” – 07/03/2022

“How measuring transverse strength and the factors affecting it” – 20/10/2022
Objectives

Raise awareness of difficulties
Identify best practices
Identify next steps
Agenda (UK time)

14:00h – Meeting introduction – Yentl Swolfs
14:05h – Topic presentation - Federico Paris, Michael Wisnom, Yentl Swolfs
14:20h – 5-minute presentations
15:20h – Panel member questions and comments (live)
15:40h – Break
15:50h – Open discussion (Q&A or raising hands)
16:40h – Conclusions, suggestions for next steps and topics for next workshops
17.00h – End of meeting
## 5-minute presentations

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<td>Experimental observations on the effect of the 90 degree ply block thickness on the strength of 0/90 laminates</td>
<td>Elena Correa</td>
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<td>The effect of transverse cracking on longitudinal tensile strength</td>
<td>Yentl Swolfs</td>
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<td>Recent advances in UD failure simulation and its application to laminate strength</td>
<td>Tomonaga Okabe</td>
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<td>Quasi-isotropic laminates, fiber failure or delamination?</td>
<td>Christian Hochard</td>
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<td>Predicting unnotched strength of QI laminates using UD strength and size effect laws</td>
<td>Xiaodong Xu</td>
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<td>The influence of edge delamination on coupon strength tests</td>
<td>Richard Butler</td>
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<td>Simulating sub-critical transverse cracking and delamination in blocked un-notched specimens</td>
<td>Silvestre Pinho</td>
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<td>Tensile strength of thin-ply quasi-isotropic laminates: is controlled by fiber failure or by other mechanisms?</td>
<td>Joel Cugnoni</td>
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<td>On the use of crossply and quasi-isotropic laminates to measure the unidirectional compression strength of composites</td>
<td>Dan Adams</td>
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<td>Experimental and numerical study on the compressive failure of different carbon/thermoplastic multi-layered laminates</td>
<td>Frédéric Laurin</td>
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<td>Effect of off-axis ply orientation on 0-fibre microbuckling</td>
<td>Costas Soutis</td>
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Ground rules

Session is being recorded
Slides will be shared afterwards

During discussions
  Write questions in Q&A or raise hand (at anytime)
  (optional) Upvote questions
  No camera for audience
  Use chat for general comments and saying hi

Participants list not visible