



第223回GMSI公開セミナー／第47回CIAiSセミナー

Composites Process Simulation: Advances and Challenges

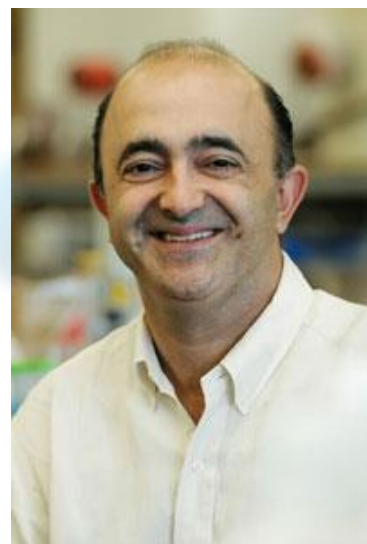
Prof. Anoush Poursartip

Director of Composites Research Network, Professor of Materials Engineering, The University of British Columbia, Canada

日時: 2017年3月13日(月) 14:00-15:30

場所: 東京大学工学部7号館 2F会議室(234号室)

Process simulation of composites has been the subject of significant academic research since the early days of the field. Our research group has been active in this area since the mid-1980s, with early work focussed on understanding the thermochemical and residual stress/dimensional response of thermoset matrix composite materials and structures. We have more recently extended our approach to thermoplastic materials, modelling crystallization and melting, as well as thermo-viscoelasticity. To predict porosity, our latest work incorporates a 3 phase (fibre, resin, voids) representation of the composite material in an integrated flow-stress formulation, which allows for continuous modelling of the composite response from pre-gelation debulking to cooldown after vitrification. Extension of the approach to wrinkling is the next challenge, as well as the realization that as the complexity of models increase significantly, the need to characterize materials experimentally at a multi-scale level is also growing dramatically.



主催:

東京大学大学院工学系研究科「機械システム・イノベーション」プログラム(GMSI)
「最先端融合科学イノベーション教育研究コンソーシアム」(CIAiS)

本件連絡先:

東京大学大学院工学系研究科航空宇宙工学専攻 教授 武田 展雄

GMSIプログラム事務局 E-mail: office@gmsi.t.u-tokyo.ac.jp Phone: 03-5841-0696