

1st FRASCAL Virtual Colloquium

Thursday, May 6, 2021 at 2pm CET

Predictability of failure in disordered solids using fiber bundle models

Soumyajyoti Biswas

Department of Physics, SRM University - AP, Andhra Pradesh 522502, India

The fiber bundle model is a simple model for breakdown in disordered materials. In this talk, we will discuss the formulation of the model and show how it can reproduce generic breakdown properties of disordered materials. Using those properties, it is possible to make predictions about the failure time for such materials. We will discuss how the predictability of the model changes when the disorder strength and the range of interaction are varied in the model.



