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The Virtual Fields Method

Extracting Constitutive Mechanical Parameters from Full-field Deformation Measurements

- Contains an extensive theoretical description of the method as well as numerous examples of application to a wide range of materials (composites, metals, welds, biomaterials etc.) and situations (static, vibration, high strain rate etc.)
- Contains a detailed training section with examples of progressive difficulty to lead the reader to program the VFM
- Is accompanied with a set of commented Matlab programs as well as with a GUI Matlab based software for more general situations

The Virtual Fields Method: Extracting Constitutive Mechanical Parameters from Full-field Deformation Measurements is the first and only one on the Virtual Fields Method, a recent technique to identify materials mechanical properties from full-field measurements. It contains an extensive theoretical description of the method as well as numerous examples of application to a wide range of materials (composites, metals, welds, biomaterials etc.) and situations (static, vibration, high strain rate etc.). Finally, it contains a detailed training section with examples of progressive difficulty to lead the reader to program the VFM. This is accompanied with a set of commented Matlab programs as well as with a GUI Matlab based software for more general situations.

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