
laminata_moduli

Computes the in-plane elastic moduli as well as the flexural elastic moduli

Inputs

tplies - Thickness of each ply
nplies - Number of plies
[A] - Extensional stiffness matrix
[D] - Bending stiffness matrix

Outputs

[moduliplane] - In-plane elastic moduli
[moduliflex] - Flexural elastic moduli

Calling the Function

```
[moduliplane,moduliflex]=laminata_moduli(A,D,nplies,tplies)
```

Testing File

Click [here](#) to see a testing file for using the function laminata_moduli

Example

Inputs:

Number of plies: 3

For Ply: 1

Ply Thickness: 0.005

For Ply: 2

Ply Thickness: 0.005

For Ply: 3

Ply Thickness: 0.005

Extensional Stiffness Matrix:

1.0e+09 *		
1.8700	0.0435	0
0.0435	1.0130	0
0	0	0.1076

Bending Stiffness Matrix:

1.0e+04 *			
4.9250	0.0815		0
0.0815	0.4696		0
0	0	0.2017	

Outputs:

In-Plane Modulii

Ex		1.24542E+11
Ey		6.7466E+10
nuxy		0.0428924
Gxy		7.17333E+09

Flexural Modulii

Efx		1.74608E+11
Efy		1.6649E+10
nufxy		0.173509
Gfxy		7.17156E+09

Description

Outputs the in-plane elastic modulii as well as the flexural modulii in vector form: [Ex Ey nuxy Gxy] and [Efx Efy vfxxy Gfxy]