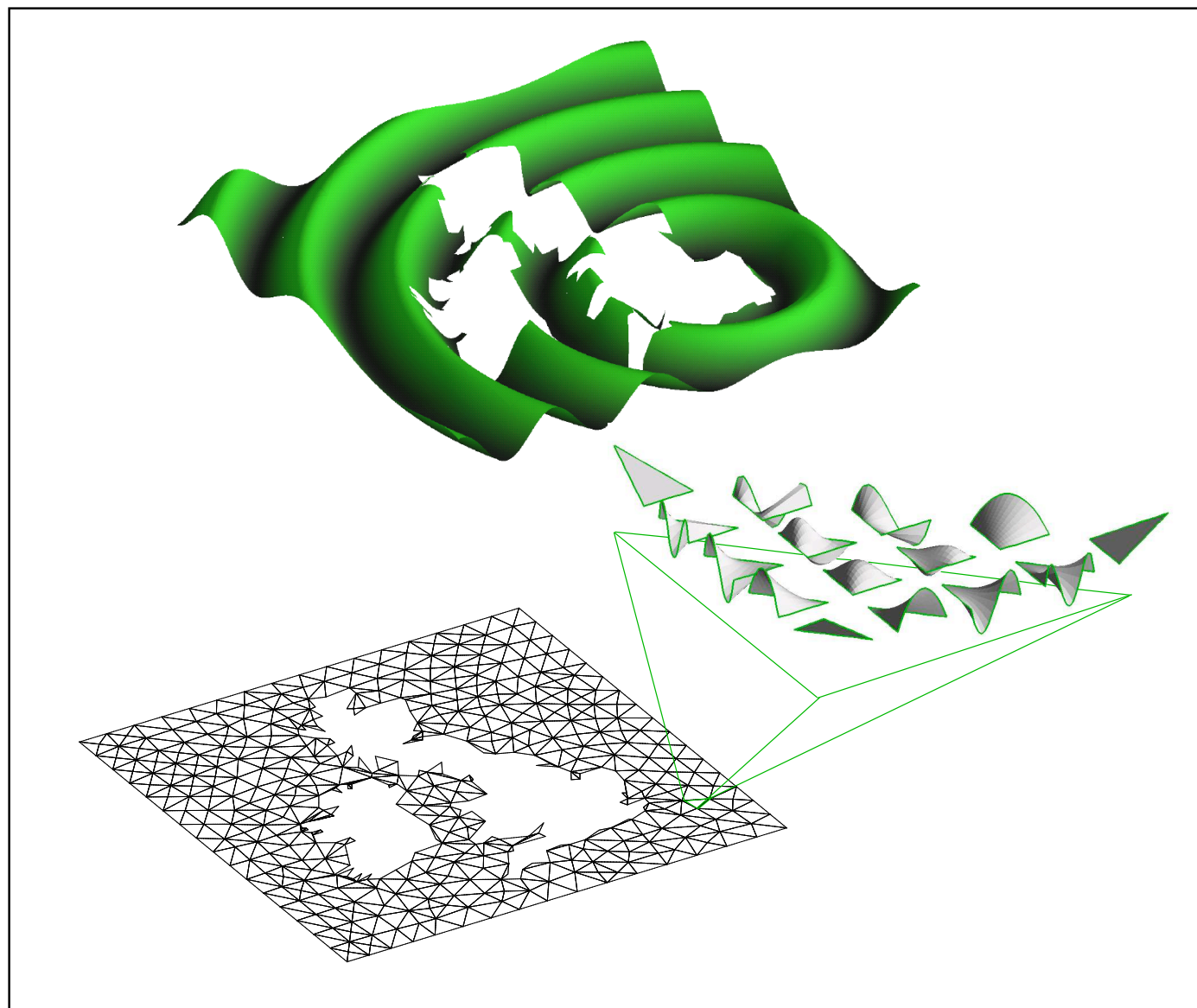


A Hands-On Approach to Implementing and Using Spectral/hp Elements



People

Professor Spencer Sherwin
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Professor Mike Kirby
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University of Utah

Mr. Peter Vos
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Course Format and Schedule

Thursday

09:00 - 09:50 Lecture 1 - LibUtilities (Kirby)
10:00 - 10:50 Lecture 2 - StdRegions (Sherwin)
11:00 - 12:20 Computing Lab 1 (Vos)
12:30 - 14:00 Lunch
14:00 - 14:50 Lecture 3 - SpatialDomains (Kirby)
15:00 - 15:50 Lecture 4 - LocalRegions (Sherwin)
16:00 - 17:30 Computing Lab 2 (Vos)

Friday

09:00 - 09:50 Lecture 5 - MultiRegions (Sherwin)
10:00 - 10:50 Lecture 6 - Understanding the Full Process (Kirby)
11:00 - 12:20 Computing Lab 3 (Vos)

Nektar++ Overview

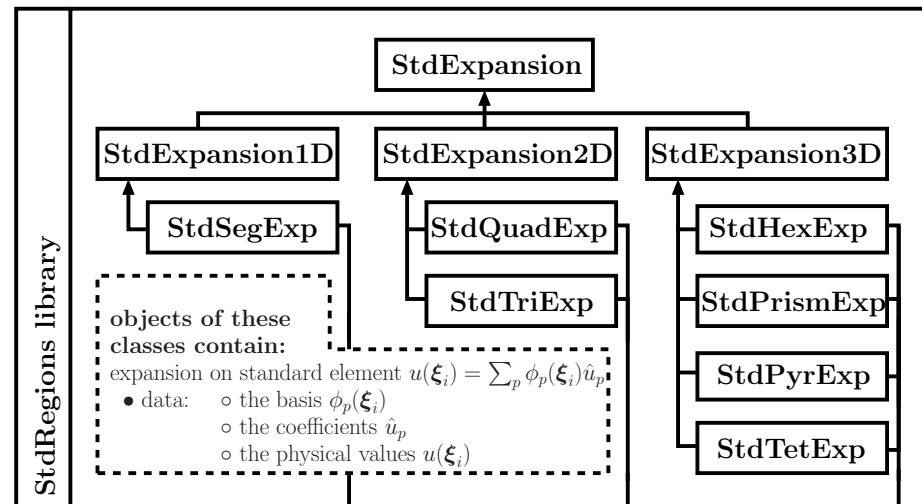
What is it?

Nektar++ is an open source software library currently being developed and designed to provide a bridge to the community – to provide a toolbox of data structures and algorithms which implement the spectral/hp element method, a high-order numerical method yielding fast error convergence. It is implemented as a C++ object-oriented toolkit which allows developers to implement spectral element solvers for a variety of different engineering problems.

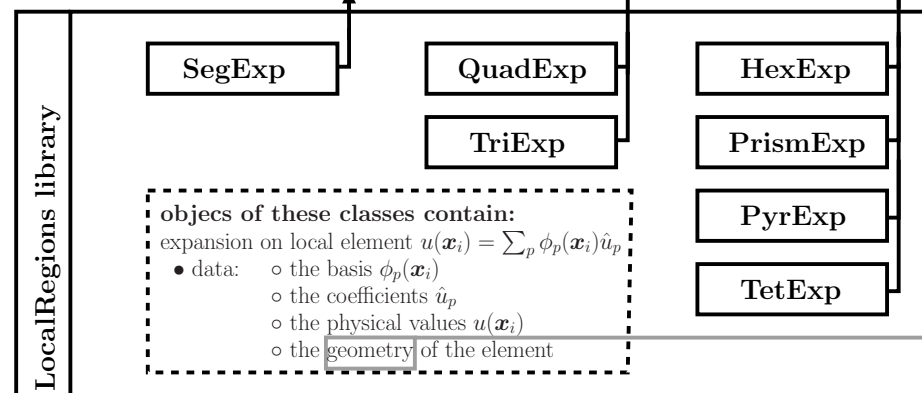
For more information, go to:
www.nektar.info

Overview of Nektar++ Structure

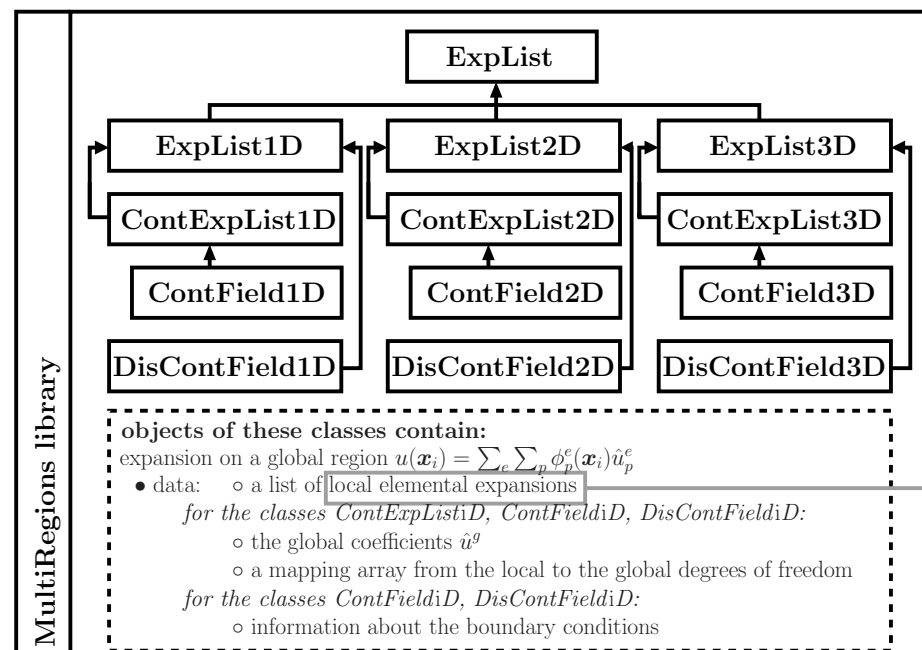
Lecture 2



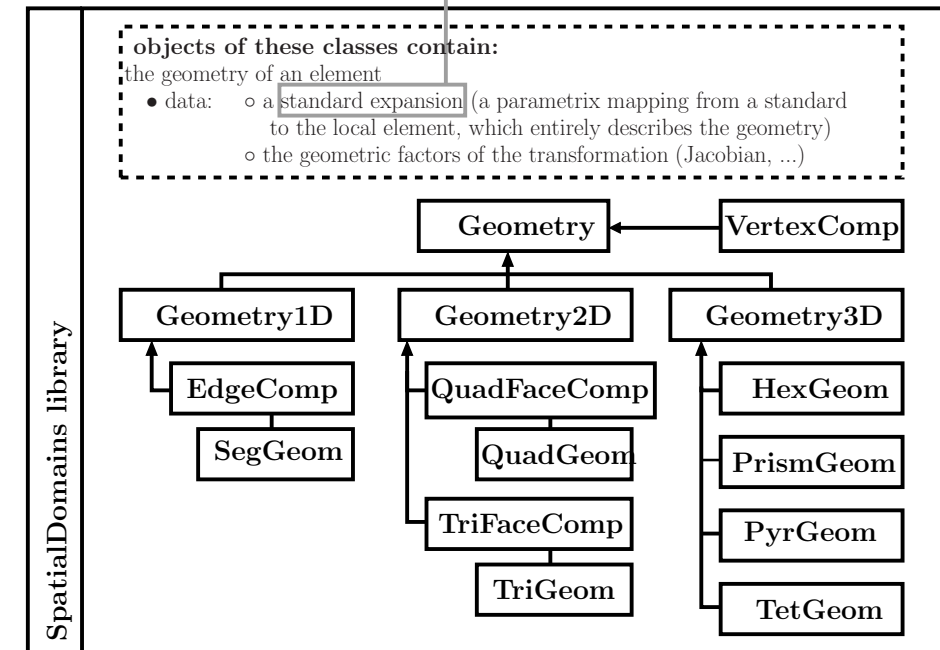
Lecture 4



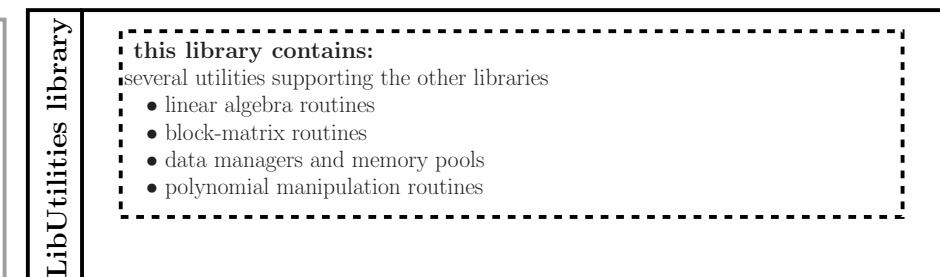
Lecture 5



Lecture 3



Lecture 1



Lecture 6 - Pre- and Post- Processing

Books

