

## Scientific Computing

- Publications
- Center for Biomedical Computing
- Projects
- Available Master's topics
- Intranet
- People



### Talk: Tabulating finite element basis functions

Professor Robert C. Kirby from Texas Tech University will hold a talk at Bakrommet entitled: "Tabulating finite element basis functions"

**Total number of participants:**  
**Number of Participants not related to CBC:**  
**Number of different nationalities represented:**  
**Total number of speakers: 1**  
**Total number of talks: 1**

#### Abstract

Access to nodal basis functions can be a limiting factor in finite element codes. Users would like bases for  $H_1$ ,  $H(\text{div})$ , and  $H(\text{curl})$  for any polynomial degree, but this can be difficult to achieve. Moreover, design decisions are usually made not by what method is appropriate but by what method is expedient to implement. I will talk about a general mathematical framework that translates problems of computing general finite element bases into linear algebra. As an example, I will talk about the Karper-Mardal-Winther element in some detail. I will also discuss some of the technological issues, such as relative merits of using numerical and symbolic methods.

<b>What</b>	
<b>When</b>	Dec 17, 2007 from 03:00 PM to 04:00 PM
<b>Where</b>	Bakrommet
<b>Contact Name</b>	Anders Logg
<b>Add event to calendar</b>	 vCal  iCal