



**Department of Mathematics, Statistics and Computer Science
St. Francis Xavier University**

Presents

A Diagrammatic Approach to Model Completion

by

Yngve Lamo

Bergen University College, Norway

Department of Computer Science

Adjunct Professor of Computer Science, StFX

Monday, October 5 @ 2:15pm in Annex 23A

Metamodelling plays an important role in model-driven engineering as it can be used to define domain-specific modelling languages. During the modelling phase, software designers encode domain knowledge into models which may include both structural and behavioural aspects of a system. In this paper we propose a diagrammatic approach to aid the software designer to complete partial models and thereby reduce modelling effort. We introduce a declarative approach where we define completion rules that are executed by the use of model transformations. We also study the termination of such model transformation systems and provide sufficient conditions for termination by generalizing existing work on termination of model transformation systems. The approach will be motivated by examples from metamodelling in health care.

The talk is based on a joint paper with Fazle Rabbi, Bergen University College, Yngve Lamo, Bergen University College, Ingrid Chieh Yu, University of Oslo and Lars Michael Kristensen Bergen University College.