

## ***LOGIC SEMINAR***

**Guest Speaker: Sergey Goncharov**  
**Sobolev Institute**

**Date:** Tuesday, January 22, 2019

**Time:** 2:00 PM

**Location:** 125 Hayes-Healy Hall



### ***Lecture Title:***

**The computability via definability and polynomial computability**

### ***Abstract***

The computability on abstract models can be done on the base of definability via  $\Delta_0$ - and  $\Sigma$ -formulas. We constructed the computability on the base definability over hereditary finite subsets superstructure over model  $\mathfrak{M}$  or hereditary finite list-extension over model  $\mathfrak{M}$  and in such way that it is possible to define computability over abstract models. We will consider different enrichments of our language for notion on terms and discuss the problem of complexity of definable functions. It is the base for constructing a logic programming language. We will construct extensions with different properties of computability.