# ABSTRACT

The main scope of submited master thesis is the use of quantitative methods of imaging spectroscopy data for retrieval of chlorophyll content of forrest canopies. It demonstrates the potentials of radiative transfer models in combination with exponential regression model for retrieval of chlorophyll content from imaging spectroscopy data. Estimation of Norway spruce chlorophyll content is based on two datasets acquired in August and September 2009 by airborne very high spatial resolution sensors AISA Eagle and AISA Dual over Cerna Hora and Smrcina sites. Obtained chlorophyll content data were finally used for creation of high scaled (1: 5000) map outcomes.

**Keywords:**