

## **Abstract**

This bachelor thesis deals with the issue of modelling the runoff from melting snow. The main objective is to evaluate two basic methods: degree-day approach and energy balance method. Part of the thesis is the application of degree-day approach in the headwater area of Bystřice River in the Krušné Mountains. Degree day factors were calculated using air temperature and flow rates in the closure profile for the spring snowmelt period in years 2009 and 2010. Degree Day factors were used for modelling the runoff from melting snow. Study results were compared with the findings published in the literature.

**Key words:** temperature index, degree-day approach, energy balance of snow cover, snowmelt modelling