The master thesis submitted by Ms. Noémi Beley deals with computer simulations of heat transfer by radiation using the discrete ordinates model as implemented in the ANSYS Fluent CFD software. The main tasks of the diploma project were:

a) optimization of model setup (angle discretization, numerical mesh density, surface splitting, etc.);

b) comparison of various tube radiant heater reflector geometries with respect to the distribution of emitted radiative heat flux.

Ms. Beley had started to work on her diploma project quite late due to reasons which were mostly beyond her control. Although she tried to compensate for this unfavorable circumstance by increasing her work effort, some parts of the thesis apparently suffer from lack of time. On the other hand, Ms. Beley did her best in performing all the assigned tasks at high level. She was well organized in her work and she regularly discussed her results with me. She was adequately independent in solving individual steps of the problem. She showed very good analytical skills, and ability to apply acquired knowledge as well as to learn and implement new information. The thesis proves her excellent understanding of the subject matter.

Ms. Beley proved that she is able to solve engineering problems independently; this includes implementing the knowledge gained in the study program, self-learning, making conclusions about the obtained results and deciding about possible directions of the solution process. In my opinion, the thesis fulfills the criteria for the Master’s degree in Mechanical Engineering at CTU in Prague.

I may suggest that the overall evaluation grade for the thesis is:

A (excellent).