

Master's Project (MP, 5 ECTS)

Literature Research on the Plate-Load Test and Radial-Press Test

The plate-load test (PLT) and radial-press test (RPT) are common testing procedures for gaining information about in-situ parameters of a rock mass.

These parameters are of utmost importance, since a realistic prediction of a rock mass behaviour is much easier and more accurate with in-situ parameters than with intact rock parameters gained in a laboratory.

The project aims to get an understanding on how the PLT and RPT work. How do you derive the wanted parameters and where are the advantages and disadvantages of the two methods.

The elaboration follows the steps below:

- How does the test setup look like/what boundary conditions are needed for the two methods?
- Describe the testing procedure for both methods.
- Which parameters can be gained and how?
- Advantages and disadvantages for the two methods.

This project is the basis for a consecutive Master's thesis, which shall lead to a method to use the gripper forces of a TBM to determine in-situ rock mass parameters (with focus on the rock mass stiffness).

Templates for the scientific report can be found on the institute's homepage. There is also a guideline for scientific writing free downloadable at the homepage, whose compliance is mandatory. The language for the report can either be in English or in German.

Supervisor	Martin Blümel <i>Graz University of Technology</i> <i>Institute of Rock Mechanics and Tunnelling</i>
Start	by appointment
Duration	ca. 125 h
Contact	bluemel@tugraz.at