

# Ph.D. roadmap

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## Overview

This Ph.D. is conducted at the Swiss Plasma Center (SPC) under the supervision of Stefano Coda and Dmytry Mykytchuk.

The focus of this first part will be the development of a Beam Emission Spectroscopy (BES) diagnostic on TCV, in order to measure the density fluctuations during tokamak operation.

Secondly, the work will move on the calibration of the Motional-Stark Effect (MSE) diagnostic, already implemented on TCV.

## Currently to do

1. Adding BES, and more MSE to the SPC wiki.
2. Getting used with the matlab code for MSE.
3. Studying hardware of BES.
4. Having a look at plasma instabilities.
5. Time correlations in the code.
6. Thinking about what we can see with BES.
7. Common mode rejection.
8. Dynamic beam power.