



Friedrich-Alexander-Universität
Faculty of Engineering

Department Materials Science

WW8: Materials Simulation

Practical: Phase-Field Method

Basics and Application in Materials Science

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Supervision:

Contents

1 Introduction

Phase-field simulation is a versatile application in the toolbox of materials simulation. It is often used for simulations of phase transitions, dislocation evolution, fracture simulations etc. The following practicals aim is to get a practical introduction into the subject. In two separate tasks a 1D single-component solidification simulation and the calculation of a bulk energy density coefficient are going to be conducted.