

Mathematical model of a three mass and three damped spring system

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1 Introduction

A teoretical model is useful to validate the measurement of the physical system, and to estimate the physical quantities. The phisical configuration is represented in Figura 1 and include a metallic plate, the tample and the base.

2 Three mass - three damped spring sistem

The easiest way to represent the system in Figura 1 is represented in Figura 2 where index 1 refers to the plate, index 2 refers to the sample, and index 3 refers to the floor.



Figura 1: Phisical configuration.

Figura 2: Theoretical model.