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# A mathematical model describing concrete carbonation process

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## Abstract

In this talk, we consider a mathematical model for concrete carbonation phenomenon. This model consists of moisture transport and carbon dioxide transport. Moisture transport is described as a quasilinear parabolic equation with a hysteresis effect between the relative humidity and the degree of saturation, and carbon dioxide transport is a parabolic equation considered the concentration of carbon dioxide in air and in water. In this talk, we discuss the existence and uniqueness of a solution for an initial boundary value problem of this model.

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