

# Partial Differential Equations Seminar

**Title** Marcinkiewicz regularity for singular parabolic  $p$ -Laplace type equations with measure data

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**Date** December 20<sup>th</sup>, 14:00 ~ 15:00

**Location** 과학관 225 강연

## Abstract

In this talk, we consider a parabolic  $p$ -Laplace type equation when the right-hand side is a signed Radon measure with finite total mass, whose model is 
$$u_t - \operatorname{div} (|Du|^{p-2} Du) = \mu \quad \text{in } \Omega \times (0, T) \subset \mathbb{R}^n \times \mathbb{R}.$$

In the singular range  $\frac{2n}{n+1} < p \leq 2 - \frac{1}{n+1}$ , we discuss integrability results for the spatial gradient of a solution in the Marcinkiewicz space, under a suitable density condition of the right-hand side measure  $\mu$ .



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