

The Hong Kong Polytechnic University Department of Applied Mathematics

Seminar On

Blow-up and Quenching Phenomena of Degenerate Parabolic Problems

by

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Abstract

For the problem given by $\xi^q u_\tau = u_{\xi\xi} - \frac{b}{\xi^2}u + \sigma f(u)$ for $0 < \xi < a, 0 < \tau < \Lambda \le \infty$, $u(\xi, 0) = u_0(\xi)$ for $0 \le \xi \le a$, and $u(0, \tau) = 0 = u(a, \tau)$ for $0 < \tau < \Lambda$, where *q* and *b* are nonnegative constants, σ and *a* are positive constants, and *f* and $u_0(\xi)$ are given functions. We study the blow-up and quenching phenomena of *u*.

Date	: 4 June, 2008 (Wednesday)
Time	: 3:00 – 4:00 p.m.
Venue	: Departmental Conference Room HJ610 The Hong Kong Polytechnic University