

## 第122回 広島数理解析セミナー (2008年度)

### Hiroshima Mathematical Analysis Seminar No.122

日時 : 9月19日(金) 16:30~17:30

場所 : 広島大学理学部 B707

講師 : Julián López-Gómez 氏 (Universidad Complutense de Madrid)

題目 : Metasolutions

要旨 : For a nonlinear elliptic boundary value problem, suppose we have a non-negative solution,  $u$ , in a subdomain which is infinite on the boundary of the subdomain. By a metasolution, we mean the extension of  $u$  as  $=$  infinity to the rest of the domain. Thus, metasolutions are continuous generalized solutions that can take the value infinity on one or several components of the underlying domain. Metasolutions arise in a natural way in studying spatially heterogeneous problems and describe the limiting behavior of very general classes of semilinear parabolic problems whose asymptotic behavior is not regulated by steady-state solutions. They are imperative for describing the dynamics of wide classes of superlinear indefinite parabolic problems. This talk will discuss a number of different aspects concerning them.

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