

1. Record Nr.	UNINA9910480524503321
Autore	Mselati Benoit <1977->
Titolo	Classification and probabilistic representation of the positive solutions of a semilinear elliptic equation // Benoit Mselati
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , 2004 ©2004
ISBN	1-4704-0396-X
Descrizione fisica	1 online resource (146 p.)
Collana	Memoirs of the American Mathematical Society, , 0065-9266 ; ; Volume 168, Number 798
Disciplina	515/.353
Soggetti	Differential equations, Elliptic Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"March 2004, Volume 168, Number 798 (third of 4 numbers)."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""Contents""; ""Introduction and statement of the results""; ""Chapter 1. An analytic approach to the equation <math>\Delta u = u^{[sup](2)}</math>""; ""1.1. Parametrization near the boundary of the domain""; ""1.2. Basic facts about linear elliptic PDE's""; ""1.3. The equation <math>\Delta u = u^{[sup](2)}</math>""; ""Chapter 2. A probabilistic approach to the equation <math>\Delta u = u^{[sup](2)}</math>""; ""2.1. Linear elliptic PDE's and Brownian motion""; ""2.2. The Brownian snake""; ""2.3. Stochastic boundary values""; ""2.4. Fine topology and fine trace""; ""2.5. Two key problems""; ""Chapter 3. Lower bounds for solutions""</p> <p>""Main results proved in this chapter""""3.1. Upper bounds for <math>u_{[sub](K)}</math> in terms of the boundary capacity of <math>K</math>""; ""3.2. Lower bounds for <math>u</math>-moderate solutions""; ""3.3. Synthesis""; ""Chapter 4. Upper bounds for solutions""; ""Main results proved in this chapter"""; ""4.1. The case of a strongly star-shaped domain"""; ""4.2. The case of a general domain""; ""4.3. Proof of Proposition 4.1""; ""Chapter 5. The classification and representation of the solutions of <math>\Delta u = u^{[sup](2)}</math> in a domain""; ""5.1. Representation of solutions""; ""5.2. Admissible traces and classification results""</p> <p>""Appendix A. Technical results""""A.1. Parametrization near the boundary""; ""A.2. Estimates for the Green function""; ""A.3. The auxiliary function <math>p</math>""; ""A.4. Proof of Lemma 2.20""; ""Appendix.</p>

Bibliography"; "Notation index"; "Subject index"; "A"; "B"; "C";  
"D"; "E"; "F"; "G"; "H"; "I"; "L"; "M"; "N"; "P"; "R"; "S";  
"T"

---