

## Index

- A-Dirichlet problem 29,56  
Arens, R. 32  
Arens-Singer boundary 27  
Arens-Singer measure 26
- Baernstein, Albert, II 144  
barrier 13  
    plurisubharmonic 84  
    subharmonic 79  
Basener, R. 64  
Bedford, E. 104,105  
Besicovitch, A. 127  
Bishop, E. 11,16,19,32  
Bochner, S. 32,126  
Bremermann, H. 83,91  
Bremermann function 74  
    on a domain in  $\mathbb{C}^n$  98  
Bremermann's Theorem 93  
Bremermann's generalized Dirichlet problem 102  
Burkholder, D.L. 144
- Calderón, A.P. 126,127  
Carleson, L. 47  
Catalan constant 142  
Cauchy transform 34  
Choquet, G. 1  
Choquet boundary 10  
complex Hessian matrix 83  
Cole, B. 46,64,125,129,135,144,149,152

- Cole's Theorem  
    conjugation operation for Jensen measures 133  
    conjugation operation for representing measures 109  
    corona counterexample for Riemann surface 49  
conjugate function 108  
conjugation operator 108  
corona problem 46
- Davie, A.M. 73  
Davis, B. 144  
Debiard, A. 41, 43  
deLeeuw, K. 11, 19  
Diederich, K. 97
- Edwards, D.A. 1, 3  
Edwards' Theorem 3
- Fornaess, J.E. 97
- Garnett, J. 73  
Gaveau, B. 41, 43  
generalized Dirichlet problem 78  
generalized peak point 24  
generalized peak set 24
- Hadamard, J. 32  
Hardy, G.H. 127  
Hartogs, F. 32  
Hartogs series 57  
Hartogs-Laurent polynomials 61  
Helson, H. 148, 149, 152  
Helson's Theorem 148  
Hoffman, K. 32  
Hörmander, L. 83

- Jensen, J.L.W.V. 31, 32  
Jensen boundary 28  
Jensen-Hartogs inequality 2, 28  
Jensen measures 2, 28  
Jensen's inequality 7
- Keldysh, M.V. 13  
Kolmogoroff, A.N. 127  
Kolmogoroff estimate 115, 122, 136  
König, H. 126
- Littlewood, J.E. 127  
local maximum modulus principle 65  
locally log-envelope function 57  
    on a domain in  $\mathbb{C}^n$  98  
locally quasi-subharmonic function 57  
locally subharmonic function 57  
log-envelope function 28, 55  
Lowdenslager, D. 148, 149
- Martin, W.T. 32  
maximal measure 16  
McKissick's Swiss cheese 64  
Meyer, P.A. 1  
Monge-Ampère equation 105
- peak point 24  
peak set 24  
Phelps, R. 1  
Pichorides, S.K. 144  
plurisubharmonic barrier 84  
plurisubharmonic function 83
- quasi-subharmonic function 54

- $\mathcal{R}$ -Dirichlet problem 9
- $\mathcal{R}$ -envelope function 5
- $\mathcal{R}$ -face 12
- $\mathcal{R}$ -measure 1
- regular boundary point 80
- representing measure 22
- Riesz, M. 107, 126, 127
  - estimate 107, 108, 111, 125, 129, 136
- roadrunner set 44
- Rossi, H. 86
  - local maximum modulus principle 65
  - local peak point theorem 71
  - theorem on Shilov boundary of  $H(K)$  89
- $S_\delta$ -set 88
- Scheinberg, S. 52
- sharp constants 137
- Shilov boundary 13
  - of  $A$  23
- Sibony, N. 52, 54
- Singer, I.M. 32
- smooth boundary point 85
- solution to
  - Bremermann's generalized Dirichlet problem 102
  - the  $A$ -Dirichlet problem 56
  - the generalized Dirichlet problem 78
  - the  $\mathcal{R}$ -Dirichlet problem 9
- strictly plurisubharmonic function 84
- strictly pseudoconvex boundary point 85
- subharmonic function 54
- subsolution 78
- Szegő, G. 32
- Taylor, B.A. 104, 105

upper semi-continuous regularization 65

Vladimirov, V.S. 32, 83

Walsh, J.B. 103

weak-type estimate 123, 136

Wermer, J. 64

Yabuta, K. 126, 144

Zygmund, A. 107, 127

Zygmund estimates 107, 115, 119, 136