Index

$A'$, 28
$A$, 28
arcwise connected, 34
approximately continuous function, 33

$B_c^*, 28$
$B_B^*(x, r)$, 29
$B^*_D$, 51
$b(A)$, 28
Baire, 29, 33, 49, 92
balayage, 13
Bedford, 49
Beurling, 54
Borel’s Monogenic Functions, 45
Borel series, 92
Brelot property, 40
Brelot, 13
Bremermann’s theorem, 15

$\mathcal{C}A$, 28
Carleman-Milloux, 54
Cartan, 13, 50
completely regular, 30, 49
convex function, 15
complete pluripolar set, 17, 82, 88

$\partial_f A$, 28
d$(z, A)$, 54
density topology, 33
Dirichlet problem, 25

$E^*_H$, 18
$E^*_B$, 76, 88
Edigarian, 19, 75, 96
Edlund, 70, 72, 97
$\varepsilon^*_z$, 36

$\mathcal{F}$-PSH$(U)$, 62
finely analytic curve, 76, 80
Fine Analytic Structure, 79, 85
$\mathcal{F}$-holomorphic functions, 71
finely harmonic function, 38, 42
finely holomorphic function, 41
finely hypoharmonic, 37
fine topology, 27, 28
Finely Plurisubharmonic Functions, 62
$f$-lim sup, 39
$\mathcal{F}$-pluripolar set, 62, 66
Fine Pluripotential Theory, 21
finely subharmonic function, 35, 37, 52, 73, 76, 82
FSH$(U)$, 37
Fuglede, 21, 57, 81

Gauthier, 21
gluing lemma, 59
Green set, 25

$H(K)$, 71
Harmonic measure, 54
harmonic function, 25
Hessian matrix, 14

$\mathcal{G}z$, 54
$i(A)$, 28
irregular boundary point, 26

Jörice, 70, 80

Levenberg, 18, 19, 70, 80
local connectedness, 21, 34, 51
maximum principle, 12
mean-value inequality, 11, 12
Nevanlinna, 54
Notations, 50
Open Problems, 88, 96
Overview of the thesis, 20
path connected, 89
pluripolar hull, 18, 20, 22, 69, 70, 74
pluripolar sets, 15
pluri-thin set, 17, 50
pluri-fine topology, 20, 49
Plurisubharmonic function, 13
Poletsky, 18, 19, 70
Poincaré, 13, 46
Poincaré-Voltera, 96
polar set, 12
pseudococonvex, 88
PSH(Ω), 14
quasi-Lindelöf property, 33, 49, 51
\[ \mathfrak{R} \], 54
regular boundary point, 26
regular set, 25
\[ R_E, \hat{R}_E \], 35, 36
Shcherbina, 72, 96
SH^+(Ω), 35
subharmonic function, 11, 55
swept-out Measure, 35
sweeping out, 13
Taylor, 49
thin set, 26, 32
upper semi-continuous, 13
uniqueness theorem, 45
Wermer, 80, 81
Wiegerinck, 19, 75, 81, 88, 96
Wiener’s criterion, 32
Zeriahi, 18, 70