

Index

- $\mathcal{A}$ -free, 139
- AD-regular, 5
- Alberti representation, 33, 57
- α number, 40, 51
- analytic capacity, 78
- approximate
 - jump point, 111
 - limit, 111
 - tangent line, 10
 - tangent plane, 20
 - tangent subgroup, 70
- area formula, 6, 19, 55
- Besicovitch 1/2-problem, 12
- β number, 15, 29, 38, 44, 48, 49
- big pieces
 - of Lipschitz graphs, 38
 - of Lipschitz images, 38
- bounded
 - deformation, 113
 - variation, 6, 108
- Carleson measure, 39
- Carleson set, 39
- Carnot group, 63
- Cauchy transform, 79, 81
- circle pair, 11
- coarea formula, 19
- complementary subgroup, 64
- cone, 10
- corona decomposition, 43
- Crofton formula, 7
- curl, 140
- current, 116
 - in metric space, 120
 - integer multiplicity rectifiable, 117
 - integral, 117
 - mass minimizing, 129
 - normal, 116
 - rectifiable, 117
- curvature measure, 143
- curvature of a measure, 81
- defect measure, 135
- density, 4
- elliptic measure, 103
- energy minimizing, 132
- essential boundary, 110
- first variation, 122
- flat measure, 22
- generalized cubes, 43
- geometric lemma, 39
- Grassmannian manifold, 3
- Green function, 101
- Gromov–Hausdorff
 - limit, 137
 - distance, 60
- harmonic measure, 99
- Hausdorff
 - dimension, 4
 - measure, 3
- heat kernel, 97
- Heisenberg
 - group, 63
 - perimeter, 114
- horizontal
 - line, 64
 - plane, 64
 - subgroup, 64
- integral-geometric measure, 28
- intrinsic Lipschitz, 67
- isodiametric inequality, 4

- Koranyi metric, 63
- Lebesgue measure, 3
- Lipschitz
 - differentiability space, 57
 - graph, 38
 - map, 5
- Lusin property, 5
- mass
 - of a current, 116
 - of a varifold, 121
- mean curvature flow, 135
- Menger curvature, 16, 62
- metric differential, 54
- metric measure space, 139
 - pointed, 60
 - tangent, 61
- Minkowski content, 34
- monotonicity formula, 122, 133
- Mumford–Shah functional, 126
- neck decomposition, 49
- perimeter, 107
 - Heisenberg, 114
 - minimizing, 110
- Plateau problem, 110
- positive reach, 143
- principal value, 84, 94
- pseudorectifiable, 144
- purely unrectifiable
 - measure, 18
 - set, 10, 18, 52
- quasiminimizer, 125
- Rademacher's theorem, 5
- rectifiable
 - current, 117
 - curve, 6
 - fractal, 148
 - G -, 69
 - higher order, 146
 - $(m, \mathbb{H})$ -, 66
 - $(m, \mathbb{H}_{intL})$ -, 68
 - measure, 18
 - parabolic, 45
 - set, 9, 18, 52, 65
 - varifold, 121
- reduced boundary, 108
- reflectionless measure, 93
- regular Lipschitz graph, 45
- regular set
 - metric, 138
 - of a current, 129
 - of a harmonic map, 132
- regular surface, 66
- removable set
 - bounded analytic functions, 78
 - Lipschitz harmonic functions, 96
- Riesz
 - kernel, 89
 - transform, 90
- scenery flow, 145
- singular set
 - free boundary, 142
 - metric, 138
 - of a current, 129
 - of a harmonic map, 132
- spherical Hausdorff measure, 4
- stationary varifold, 122
- sub-Riemannian Laplacian, 98
- symmetric measure, 84
- tangent cone
 - metric, 137
 - of a varifold, 123
- tangent distribution, 145
- tangent field, 33
 - weak, 32
- tangent measure, 21, 70
- uniform measure, 24
- uniformly rectifiable
 - measure, 40
 - parabolic, 44
 - set, 37, 38
- varifold, 121
 - rectifiable, 121
 - stationary, 122
- vertical subgroup, 64
- wave cone, 140
- weak approximate tangent
 - plane, 56
- weak geometric lemma, 39