

Index of notation and defined terms

- 2-sided, 32
- $A \otimes_R B$, 35
- $B(6)$, 64
- $C'(\frac{1}{n})$, 77, 85
- $C(p)$, 85
- $C(p)$ small-cancellation condition, 82
- H -wall, 71
- $N(H)$, 14
- $W\text{Proj}_X(B \rightarrow A)$, 41
- $\triangleleft(c)$, 81
- $\partial_p D$, 15
- $\mathbb{C}_G(H)$, 26
- $\text{Hull}(HK)$, 28
- \mathcal{MQH} , 107
- \mathcal{VH} -complex, 11
- $\langle\langle H_1, H_2, \dots \rangle\rangle$, 78
- $\mathcal{N}_\mu(H)$, 25
- $|Y_i|$, 86
- $|P|$, 86
- i -shell, 82
- n -cube, 7
- $\#(p,q)$, 14
- $\mathbb{C}(Y \rightarrow X)$, 36

- Absorbing squares, 86
- acts, 54
- admit, 89
- Admitted rectangles, 89
- almost malnormal, 25
- almost malnormal quasiconvex hierarchy, 107
- alternating, 8
- angle, 81
- angled 2-complex, 81
- annuladder, 103
- annular diagram, 101
- annular diagram in X^* , 101
- axis, 67

- $B(6)$, 64
- betwixts, 53
- bicollared, 103
- boundary cycle, 15
- boundary path, 15
- bounded packing, 62

- cage, 128
- cancelable pair, 84
- canceled pair, 17
- canonical 0-cube, 65
- canonical completion, 36
- canonical cube, 65
- canonical retraction, 36
- carrier, 14, 58, 98
- CAT(0) cube complex, 8
- cladder, 99
- class, 103
- clean, 12
- codimension-1, 58
- Combining cone-cells, 85
- commensurable, 26
- commensurator, 26
- complete square complex, 11
- cone-cell, 79
- cone-piece, 89
- consecutive, 98
- convex, 14
- convex wallspace, 96
- core, 27
- cornsquare, 21
- cosparsely, 65
- cross, 61
- crossing graph, 33
- cube complex, 7
- cubical hierarchy, 126
- cubical presentation, 78
- curvature at a 2-cell, 81
- cut-wall, 67
- cutting along a hyperplane, 126
- cyclic hierarchy, 132

- deep, 58
- degenerate, 89
- Dehn complex, 9
- diagram in a complex X , 15
- disk diagram, 15
- disk diagram D in X^* , 79
- distinct conjugates, 25
- doubly-external, 83
- dual, 13, 53
- dual CAT(0) cube complex, 2
- dual curves, 16

- elevation, 41
- expanded edge group, 127
- extends, 71
- external, 83

- faces, 7
- fiber-product, 35
- flag complex, 8
- full, 29, 117
- full subcomplex, 22
- Fully residually free groups, 132

- geodesic, 14
- graph group, 12

- halfspace carriers, 24
- halfspaces, 53
- height, 25
- hexagon move, 17
- hierarchy, 2, 131
- honeycomb, 64
- horizontal, 11
- hyperplane, 13

- immersed hyperplane, 31
- immersed walls, 72
- immersion, 10
- in parallel, 89
- incompressible surfaces, 131
- innerpath, 82
- internal, 83
- internal part, 89
- interosculate, 32
- intersecting conjugator, 26, 122

- ladder, 84
- length, 121
- limit groups, 132
- linear separation, 65
- link, 8
- local isometry, 22
- Magnus subgroup, 129
- Magnus-Moldavanskii hierarchy, 129
- malnormal, 25
- malnormal quasiconvex hierarchy, 107
- map of cubical presentations, 118
- metric small-cancellation, 77
- midcells, 57
- midcube, 13
- missing corners of squares, 23
- monkey-tails, 91
- multiply-external, 83

- no missing shells, 117, 119
- nonpositively curved, 8
- nontrivial, 82

- one-relator group, 129
- open cubical neighborhood, 44
- open halfspaces, 53
- orientation, 53
- outerpath, 21, 82

- parallel, 40
- piece, 77, 82
- pieces, 86, 89
- prime, 9
- profinite topology, 34
- properly, 65

- quasiconvex, 25
- quasiconvex hierarchy, 121
- quasiflats, 65

- raag, 12
- rectangles, 86
- reduced, 84, 86, 101
- relatively malnormal, 26
- removed, 85
- Removing bigons, 86
- Replacing cone-cells, 86
- residually finite, 34
- right-angled Artin group, 12

- self-osculates, 32
- separable, 34
- separating, 53
- shards, 89
- shell, 80
- singly-external, 83
- size, 86
- sparse, 65
- special, 31
- spur, 80, 82
- strongly convex, 104
- superconvex, 29

systole, 86

thick, 103

thickened carrier, 98

thin, 103

track, 56

triply-external, 83

trivial, 41, 82

vertical, 11

wall, 53, 97

wall partition, 53

wall-injective, 39

wall-piece, 89

walls, 96

wallspace, 53

worms, 57