

## Index

- $C$ -measurable, 86  
 $C$ -set, 85  
 $E \circ F$ , 19  
 $E^\top$ , 19  
 $E_A$ , 24  
 $S_\infty \times \mathbb{F}_\infty$ , 237  
 $U$ -admissible, 133  
 $\Delta$ , 19  
 $\Delta(X)$ , 19  
 $\mathbb{U}$ , 73  
 $\mathbb{Z}\mathbb{U}$ , 72  
 $\aleph_0$ -categorical, 180  
 $\downarrow_A$ , 260  
 $\hat{E}$ , 32  
 $\kappa$ -stable, 255  
 $\mathcal{E}$ -bounded, 26  
 $\mathcal{E}_L$ , 25  
 $\mathcal{E}_R$ , 88  
 $\mathcal{E}\mathcal{X}$ , 35  
 $\mathcal{U}_L$ , 24  
 $\mathcal{CB}$ , 29  
 $\ll$ , 4, 59  
 $\lll$ , 4  
 $\mathbb{X}_{\bar{a}, S}$ , 247  
 $\omega$ -homogeneous, 253  
 $\tau_{CB}$ , 51  
 $\bar{\mathcal{F}}$ , 22  
 $\emptyset$ -definable, 253  
 $\text{cap}_E$ , 166  
 $\text{cap}_\alpha$ , 220  
 $\text{cap}_d$ , 221  
 $\text{ent}_A(B)$ , 221  
 $\text{ent}_E$ , 166  
 $\text{ent}_\alpha$ , 220  
 $\text{ent}_d$ , 221  
 affine isometries, 79  
 almost transitive Banach space, 117  
 almost transitive on pairs, 116  
 analytic set, 63  
 approximately oligomorphic, 69  
 Arens–Eells norm, 188  
 asymptotic dimension, 104  
 atom, 187  
 atomic, 253  
 Baire measurable, 86  
 Baire property, 85  
 basis, 22  
 bornologous, 44  
 bounded geometry, 102  
 bounded in left-uniformity, 36  
 capacity, 166, 220  
 centraliser, 141  
 centre, 141  
 close maps, 44  
 coarse coupling, 203  
 coarse embedding, 44  
 coarse equivalence, 44  
 coarse space, 21  
 coarse structure, 20  
 coarsely bounded group, 78  
 coarsely bounded set, 26  
 coarsely embedded subgroup, 47  
 coarsely proper écart/metric, 49  
 coarsely proper action, 53, 170  
 coarsely proper map, 44  
 cobounded action, 53  
 cobounded set, 44  
 cocompact action, 170

cocycle, 141  
 commensurator, 178  
 compatible, 23  
 compatible metric, 26  
 composition, 19  
 Corson–Klee Lemma, 57  
 countably generated coarse structure, 38  
 countably generated over neighbourhood, 27

defect of map, 126  
 diagonal, 19  
 distorted, 106  
 distortion element, 106

écart, 21  
 efficiently contractible, 210  
 Effros–Borel space, 30  
 entourage, 20  
 entropy, 166, 220  
 European topological group, 40  
 expanding, 44

FCC group, 89  
 filter, 20  
 finer coarse structure, 25  
 finer uniformity, 25  
 Fraïssé class, 257  
 Fraïssé limit, 258  
 fragmentation norm, 82  
 functorial amalgamation, 265

gauge, 168  
 gauge metric, 169  
 generate a coarse structure, 22  
 generation by écarts, 21  
 geodesic metric, 50  
 greatest ambit, 207  
 Gromov–Hausdorff distance, 202  
 group-compact coarse structure, 35  
 growth function, 222  
 growth rates, 222

Haagerup property, 112  
 Hausdorff distance, 202

ideal, 20  
 integral Urysohn space, 72  
 inverse limit, 93

Kantorovich metric, 188

large-scale geodesic, 55  
 large-scale geodesic quasimetric space, 57  
 left-coarse structure, 25  
 left-invariant entourage, 24  
 left-saturation, 32  
 left-uniformity, 24  
 length function, 66  
 Lipschitz for large distances, 54  
 locally bounded, 39  
 locally finite metric space, 167  
 locally finite structure, 258  
 locally Roelcke precompact, 69

maximal écart/metric, 59  
 metrically amenable metric space, 224  
 metrically amenable Polish group, 226  
 metrically homogeneous, 70  
 Milnor–Schwarz Lemma, 64  
 minimal flow, 207  
 modest action, 170  
 modest map, 44  
 molecule, 187  
 monogenic coarse structure, 41  
 monogenic topological group, 43

net, 230  
 non-Archimedean, 244  
 non-spreading, 110

oligomorphic, 179  
 orbital independence relation, 260  
 orbital type, 14, 245

permutation group topology, 70, 244  
 Polish group, vii  
 power growth function, 66  
 proper metric, 173  
 proper net, 230  
 property (FH), 112  
 property (PL), 112  
 proximal isometric action, 202  
 pseudo-metric space, 21

quantifier-free type, 253  
 quasi-isometric écarts, 54  
 quasi-isometric embedding, 54  
 quasi-isometric spaces, 54  
 quasi-isometry, 54  
 quasi-isometry type, 5  
 quasi-metric space, 54  
 quasi-morphism, 126

- regular tree, 72
- relative type, 263
- right-coarse structure, 88
- Roelcke completion, 69
- Roelcke pre-compact group, 69
- Roelcke pre-compact set, 69
- Roelcke uniformity, 68
  
- semi-locally simply connected, 156
- SIN group, 90
- stable metric, 255
- stable theory, 255
- subbasis, 22
- symmetric, 247
  
- topological coupling, 185
- transpose, 19, 247
- type, 253
- type  $\emptyset$ -definable, 253
  
- ultrahomogeneous, 253
- ultralocally bounded, 133
  
- undistorted subgroup, 106
- uniform space, 20
- uniform structure, 20
- uniformity, 20
- uniformly continuous écart, 23
- uniformly continuous map, 43
- uniformly discrete, 230
- uniformly locally finite Fraïssé class, 259
- uniformly locally finite metric space, 167
- universal minimal flow, 207
- Urysohn metric space, 73
  
- vertex transitive, 70
- Vietoris–Rips complex, 189
  
- weak topology, 42
- well embedded, 99
- word metric, 60
  
- Zappa–Szép product, 77, 272