

Index

- Acceptable, 207
- Affine invariant, xii
- Alexandrov-Fenchel inequality, 139
- Allowable, 213
- Approximation numbers, 8, 61
- Approximation property, 223
- Asymptotically Hilbertian, 220
- Ball, 2
- Bernstein's inequality, 21
- Brunn-Minkowski inequality, 3, 100
- Complemented subspace, 15
- Complex interpolation, 110, 112
- Complexification, 118, 199
- Concentration of measure, x, 57
- Convexified Tsirelson, 215
- Convexity (2-convexity), 206
- Cotype q , 151
- Cotype 2, xiii, 151
- Cube, vii, 235
- Decomposition, 8
- Determinant, xiv, 178, 223, 224
- Distance (Banach-Mazur), 1
- Duality (of entropy numbers), xii, 87, 136
- Duality (of type and cotype), 23
- Dvoretzky-Rogers' Lemma, 51, 59
- Dvoretzky's Theorem, 41
- Eigenvalues, 8, 67, 197, 225
- Ellipsoid, 27
- Ellipsoid (α -ellipsoid), 33
- Ellipsoid (ℓ -ellipsoid), 34, 124
- Entire function, 229, 230
- Entropy numbers, 61
- Euclidean, 1, 42, 46, 57
- Extension, 35, 172
- Fredholm Theory, 234
- Gaussian process, 69
- Gaussian variables, 13
- Gelfand numbers, 61
- Gordon-Lewis property ($g\ell_2$), 165
- Grothendieck's Theorem, 123
- Hermite polynomials, 16
- Hilbert-Schmidt operators, 7
- Hyperplane section, 235
- Ideal property, 9, 35
- Infinite-dimensional (Kašin)-decomposition, 95
- Infinite sum of copies, 218
- Interpolation, 110, 111
- Inverse Brunn-Minkowski inequality, ix, 99, 100
- λ -isomorphic, 1
- Isoperimetric inequality, 5, 58, 140
- Iteration, 127, 129
- John's ellipsoid, 27
- John's Theorem, 33
- K -convex, xii, 20, 170, 183
- K -convexity, xii, 18, 143, 171, 183
- Khintchine's inequality, 184

250

Index

- Kolmogorov's numbers, 61
- ℓ -ellipsoid, 37
- Lidskii's trace formula, xiv, 232
- Lifting, 144, 172
- ℓ -norm, 37, 68
- Locally π -Euclidean, 171
- Lorentz spaces, 67, 174, 218, 220
- Milman ellipsoid, 100
- Mixed volumes, 139
- Modified Tsirelson, 215
- Nuclear norm, 33, 196
- Nuclear operator, xiv, 196
- Ornstein-Uhlenbeck semi-group, 25
- Phragmen-Lindelöf, 230
- Property (H), 217
- Quotient of a subspace (Q.S.), viii, 99, 108, 127–129
- Rademacher functions, 15, 25, 174
- Reflexivity, 217
- Regular position, 101
- α -regular, 120
- Santaló's inequality, viii, 100, 123, 132
- Slepian's Lemma, 55, 70, 86
- Steiner-Minkowski formula, 140
- Subsymmetric, 218
- Sudakov's minoration, 75, 85, 86
- Summing (p -summing, 2-summing), 8
- Tensor product, xiv, 225, 226
- Tsirelson spaces, 205, 215
- Type- p , 169, 171
- Type 2, 170, 171
- λ -unconditional, 162, 217
- Ultrapower, 223
- Ultraproduct, 221
- Unconditionality constant, 162
- Uniform approximation property, 223
- Urysohn's inequality, 6, 39, 85, 140, 149, 150
- U.S. sum, 219
- Volume numbers, xii, 139
- Volume ratio, 89
- Weak-cotype, xiii, 151, 168
- Weak- ℓ_1 , xv, 198
- Weak- L_2 , xv, 220
- Weak-type, xiii, 170
- Weak-Hilbert, xiv, 189
- Wiener chaos, 16