

Index

- acronyms, list of, xiii
- ancestor, 86
- ballot theorem, 54
- cell splitting, 12
- child, 86
- conditional upcrossing inequality, 108
- convergence
 - total variation, 115, 133, 135
- coupling
 - inequality, 134
 - maximal, 135
- descendant, 86
- distribution
 - β -invariant, 118
 - immigration, 63
 - linear fractional, 12
 - offspring, 3
 - quasi-invariant, 119
 - quasi-stationary, 35, 115, 119
 - size-biased, 91
 - Yaglom, 35
- distributional equation, 19–21, 31, 34, 39, 53, 65, 128
- solution, 19
- extinction probability, 8
- extinction-explosion principle, 11
- Galton-Watson measure, 89
- Galton-Watson process, 3
 - critical, 12
 - simple, 3
 - size-biased, 99
 - standard model, 4
- subcritical, 12
- supercritical, 12
 - with immigration, 63, 99
- Galton-Watson tree, 4, 5, 88
 - size-biased, 93
 - standard model, 88
- Heyde-Seneta
 - limit, 31
 - norming, 24
- immigration, 63
 - distribution, 63
- likelihood process, 109
- linear fractional distribution, 12, 15
- most recent common ancestor, 87
- offspring, 86
 - distribution, 3
 - mean, 7
 - variance, 7
- preface, vii
- progenitor, 86
- quasi-invariant distribution, 119
- quasi-stationary distribution, 35, 115, 119
- random walk, 54
 - standard, 45
- renewal
 - function, 45
 - measure, 45
- reproduction
 - mean, 7

- variance, 7
- shift operator, 89
- size-biasing, 91
- spine, 93
- symbols, list of, xiii, xv
- total progeny, 51
- total variation distance, 115, 133
- tree, 83
 - Galton-Watson, 4, 5, 88
- height, 84
- locally finite, 84
- Ulam-Harris, 4, 83
- Ulam-Harris tree, 4, 83
- ultrametric, 85

- Yaglom
 - distribution, 35
 - limit, 35