CRN-computable numbers

SOURCE	FORMALIZED RESULT
Huang, Klinge, Lathrop, Li, Lutz (2017)	CRN-computable reals
Huang, Klinge, Lathrop (2019)	CRN = analog computer
Huang & Huls (2022)	Large-population protocols
Huang & Migunov (2024)	Analog-to-protocol compiler
Haisler, Huang, Migunov et al. (2025)	Selective dual-railing
Chen & Huang (2026)	Bounded analog complexity
QBee compilation pipeline	Automated quadraticization
Zero-init no-collapse (new)	Bounded CRN non-degeneracy
Albenque & Gerin (2012)	Urn model / algebraic numbers
Cassels (1960)	Catalan equation descent
ζ(3), π, e, ln 2, γ, Catalan, Dottie	Computable constants

Population-protocol majority

SOURCE / RESULT
Angluin, Aspnes, Eisenstat (2008) Approximate majority
Doty et al. (FOCS 2021) Exact majority
Burman, Chen, Doty et al. (2021) Self-stabilizing leader election
Kanaya et al. (SSS 2025) Self-stabilizing majority

Turing universality

Bournez, Graça, Pouly (2017)	ODE universality
Soloveichik et al. (2008)	Stochastic CRN universality

Kurtz's mean-field theorem

Kurtz (1970)	Weak convergence
Kurtz (1978)	Strong approximation
CLT scale	Mean-square bound

Supporting mathematics

Frobenius · modular forms · CTMC martingales