

Supplementary Information: Solver Diagnostics

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Online Resource 1 for *Flow-Structured and Hub-Structured Laundering Typologies Are Not Detected by the Same Graph Objective*, International Journal of Data Science and Analytics. These are solver-level diagnostics that support but do not carry the argument of the main paper.

Table S1 Sampler benchmark on the same objective at $N = 20$ and $N = 80$. Recall, feasible rate, optimality gap, number of distinct elite solutions, and wall-clock. Tabu holds and the annealing-style samplers degrade.

N	sampler	recall	feas.	gap	elites	wall (s)
20	tabu	0.99	1.00	0.00	1.2	8.4
	sa	0.99	0.96	0.00	4.8	0.3
	sqa	0.99	0.96	0.00	4.8	13.8
	steepest	0.99	1.00	0.00	18.4	0.0
	rotor	0.93	0.32	0.06	10.1	0.6
80	tabu	0.99	1.00	0.00	1.1	8.4
	steepest	0.85	1.00	0.07	41.0	0.0
	sa	0.64	0.99	0.24	40.9	2.7
	sqa	0.62	0.99	0.27	41.0	261.8
	rotor	0.36	0.19	0.57	8.9	5.7

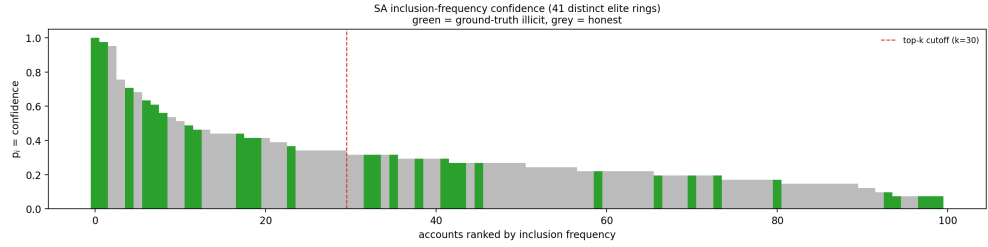


Fig. S1 Inclusion-frequency ranking from the simulated-annealing elite ensemble on a representative $N = 100$, $k = 30$ instance. Illicit (green) and honest (grey) accounts are intermixed across the ranking, so the ensemble does not cleanly separate them.

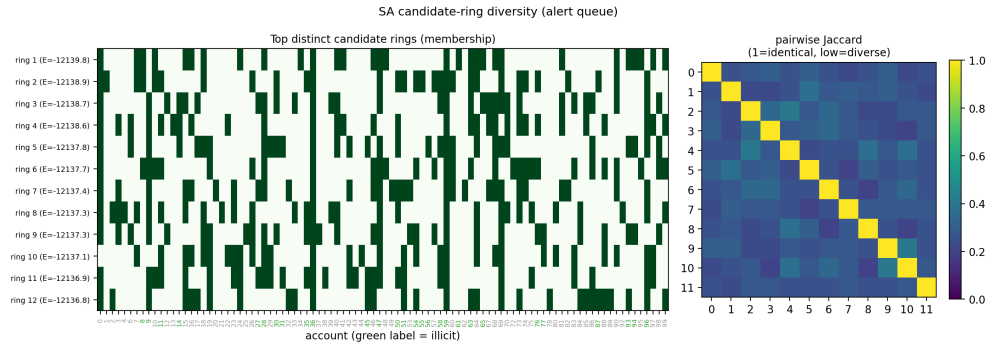


Fig. S2 Candidate-ring diversity for the same instance. The elite solutions are near-degenerate in energy and low in pairwise overlap, showing many equal-quality configurations rather than one answer.