1. Executive Summary

1. Executive summary
- Train games=940 | Derby games=75
- Nested CV=4 outer folds x 3 inner folds (expanding time-aware)
- Selected model family: Regime-aware simplex stack (Ridge/Huber/HistGB/HistGB-bag) + q50 blend
- Selected Elo variant: elo_base_static
- Nested outer RMSE/MAE: 43.363 / 34.420
- Calibration=pooled | Scale=pooled | Regime stack=False
- Runtime safety: fast_mode=False | budget_triggered=histgb_bag_auto_reduce, max_fits

1B. Runtime Bottleneck And Fixes

Runtime bottleneck and fixes
- Profile-first instrumentation added for hotspot phase totals, per-family _predict_family timing, model fit counts, and top slow events.
- Shared split-level matrix/weight cache keyed by train/val index signatures + feature signature + half-life to eliminate repeated _xy/time-weight prep.
- Bundled family prediction path prepares X/y/w once per split and fits Ridge/Huber/HistGB/HistGB-bag/q50 sequentially.
- HistGB bagging reduced to 2 models by default (fast mode uses 1), with deterministic seed schedule and budget-aware auto-reduction.
- Candidate scan uses conservative early pruning: coarse score on first inner split, then full evaluation on top candidates only.
- Budget enforcement: total time, scan time, and fit cap stop further scanning/training and continue with best-so-far.
- Budgets triggered: histgb_bag_auto_reduce, max_fits
- Fast mode=False; optimization toggles enabled=True.
- Reproducibility: seed=23, OMP_NUM_THREADS=1, MKL_NUM_THREADS=1.
- Artifact validation: predictions rows=75 (expected 75), rankings rows=165 (expected 165), ranks unique 1..165=True.

1C. Fast Profiling Before vs After (timing / fits) (1/1)

kind	name	before_sec	after_sec	delta_sec
phase	_scan_and_select_core_candidates	5.230	5.524	0.294
phase	_core_scan_score	5.226	5.516	0.290
phase	_generate_inner_oof_and_outer_preds	5.540	3.973	-1.567
phase	_predict_family	10.500	9.416	-1.084
phase	_build_split_tables	0.447	0.334	-0.113
phase	_prepare_variant_outer_data	0.550	0.440	-0.110
fit_count	histgb	48.000	51.000	3.000
fit_count	histgb_bag	8.000	6.000	-2.000
fit_count	histgb_q50	8.000	6.000	-2.000
fit_count	huber	8.000	6.000	-2.000
fit_count	ridge	48.000	51.000	3.000

1D. Runtime Focus Phase Timing Summary (1/1)

phase	total_sec	calls
_scan_and_select_core_candidates	29.713	5
_core_scan_score	29.679	1205
_predict_family	28.813	3217
_prepare_variant_outer_data	1.981	20
_build_split_tables	1.597	80
_generate_inner_oof_and_outer_preds	0.081	15

1E. _predict_family Aggregated Timing / Fit Counts (1/1)

family	predict_time_sec	predict_calls	fit_count
histgb	28.543	1516	200
ridge	0.266	1516	200
huber	0.002	61	0
histgb_q50	0.001	61	0
histgb_bag	0.001	61	0
histgb_q20	0.000	1	0
histgb_q80	0.000	1	0

2-4. Changes / Leakage / Nested CV

2. What changed vs previous pipeline
- Nested tuning for post-model layers and key hyperparameters (Ridge alpha, HistGB grid, recency half-life).
- Regime-specific simplex stacking + regime-specific calibration + regime/pool scale correction with fallback.
- Recency features: EMA multi-alpha, last3/5/8, trend, consistency ratio.
- Upgraded Elo variants: dynamic-K, team-specific regularized home effect, inactivity decay.
- HistGB seed bagging and quantile HistGB (median, plus q20/q80 for diagnostics).
- Shift diagnostics (KS + PSI + out-of-range fraction) and OOD-triggered mitigation.

3. Data constraints and leakage controls
- All features are pregame-only and built sequentially.
- Static rating models refit inside each train split; no outer-fold leakage in postprocessing.
- Derby predictions are neutral-site (home effects zeroed for derby features).

4. Nested CV design (outer/inner schematic)
 outer_fold=1 train_n=187 val_n=207 train_end=2025-01-24 val=2025-02-04..2025-03-17
 outer_fold=2 train_n=394 val_n=210 train_end=2025-03-17 val=2025-03-18..2025-04-28
 outer_fold=3 train_n=604 val_n=162 train_end=2025-04-28 val=2025-04-29..2025-05-28
 outer_fold=4 train_n=766 val_n=174 train_end=2025-05-28 val=2025-05-29..2025-06-30

5. Outer-fold selections and metrics (1/1)

outer_fo	candida	elo_varia	feature_ba	prof_life_d	ridge_alph	huber_i	best_per	inner_point	inner_post	inner_mean	inner_q50	outer_rm	outer_ma	outer_bi	outer_pred	outer_actu	outer_nsep	outer_regime	use_gain	regime	calibration	scale_mo	q50_blen	winsor_q
1	no_extra_recency	elo_base_s	no_extra_re	stack=reg	16.000	calib=regime	2	scale=poo	51.468	40.224	48.162	48.162	45.161	35.778	0.420	22.528	43.833	0.514	47.137	1.975	True	regime	pooled	0.000	0.000
2	no_extra_recency	elo_base_s	no_extra_re	stack=pool	4.000	calib=pooled	0	scale=po	46.207	36.607	46.376	46.376	43.045	34.280	-7.993	0.000	42.297	0.000	43.045	0.000	False	pooled	pooled	0.000	0.000
3	no_extra_recency	elo_base_s	no_extra_re	stack=pool	4.000	calib=pooled	0	scale=po	44.234	35.285	44.197	44.197	39.367	31.303	0.080	0.000	39.366	0.000	39.367	0.000	False	pooled	pooled	0.000	0.000
4	no_extra_recency	elo_base_s	no_extra_re	stack=reg	4.000	calib=regime	0	scale=reg	42.342	33.704	42.312	42.312	45.879	36.321	4.009	5.150	45.945	0.112	46.262	0.383	True	regime	regime	0.000	0.000

5. Outer-fold RMSE/MAE table (1/1)

outer_fold	rmse	mae	bias	pred_std	actual_std	resid_std
1	45.161	35.778	0.420	22.528	43.833	45.159
2	43.045	34.280	-7.993	0.000	42.297	42.297
3	39.367	31.303	0.080	0.000	39.366	39.366
4	45.879	36.321	4.009	5.150	45.945	45.703

6. Feature additions and recency ablations (core scan) (1/1)

feature_profile	half_life_days	scan_score_mean	scan_histgb_rmse_mean	scan_ridge_rmse_mean	n_configs
compact_recency		42.668	45.174	44.935	116
no_extra_recency	30.000	42.709	45.218	44.965	118
no_extra_recency		42.709	45.217	44.968	118
no_extra_recency	60.000	42.710	45.219	44.967	118
compact_recency	30.000	42.813	45.371	45.098	103
compact_recency	60.000	42.838	45.410	45.128	100
full_recency		42.900	45.440	45.204	96
full_recency	30.000	42.956	45.471	45.266	96
full_recency	60.000	43.031	45.541	45.341	99

6. Core scan results (top rows) (1/4)

candidate_ke	elo_variant	feature_profil	half_life_days	ridge_alpha	histgb_idx	scan_score	scan_histgb_ro	scan_histgb_sc	scan_ridge_ro	scan_ridge_sc	scan_shared_std_gap	scan_splits_us	scan_stage	outer_fold
xtra_recency|k	elo_base_stat	no_extra_recen	60.000	16.000	2	37.138	39.567	31.126	39.985	32.325	-27.637	1	coarse	1
xtra_recency|k	elo_dynamic	no_extra_recen	60.000	16.000	2	37.138	39.567	31.126	39.985	32.325	-27.637	1	coarse	1
no_extra_recen	elo_dynamic_k_te	no_extra_recen	60.000	16.000	2	37.138	39.567	31.126	39.985	32.325	-27.637	1	coarse	1
cay|no_extra_re	elo_dynamic_k_team	no_extra_recen	60.000	16.000	2	37.138	39.567	31.126	39.985	32.325	-27.637	1	coarse	1
xtra_recency|k	elo_base_stat	no_extra_recen	30.000	16.000	2	37.146	39.579	31.133	39.978	32.313	-27.704	1	coarse	1
xtra_recency|k	elo_dynamic	no_extra_recen	30.000	16.000	2	37.146	39.579	31.133	39.978	32.313	-27.704	1	coarse	1
no_extra_recen	elo_dynamic_k_te	no_extra_recen	30.000	16.000	2	37.146	39.579	31.133	39.978	32.313	-27.704	1	coarse	1
cay|no_extra_re	elo_dynamic_k_team	no_extra_recen	30.000	16.000	2	37.146	39.579	31.133	39.978	32.313	-27.704	1	coarse	1
pact_recency|k	elo_base_stat	compact_recen	60.000	16.000	2	37.172	39.567	31.126	40.081	32.418	-27.637	1	coarse	1
pact_recency|k	elo_dynamic	compact_recen	60.000	16.000	2	37.172	39.567	31.126	40.081	32.418	-27.637	1	coarse	1
compact_recen	elo_dynamic_k_te	compact_recen	60.000	16.000	2	37.172	39.567	31.126	40.081	32.418	-27.637	1	coarse	1
cay|compact_re	elo_dynamic_k_team	compact_recen	60.000	16.000	2	37.172	39.567	31.126	40.081	32.418	-27.637	1	coarse	1
xtra_recency|hl	elo_base_stat	no_extra_recen		16.000	2	37.176	39.626	31.180	39.992	32.337	-27.698	1	coarse	1
tra_recency|hl	elo_dynamic	no_extra_recen		16.000	2	37.176	39.626	31.180	39.992	32.337	-27.698	1	coarse	1
o_extra_recen	elo_dynamic_k_te	no_extra_recen		16.000	2	37.176	39.626	31.180	39.992	32.337	-27.698	1	coarse	1
y|no_extra_re	elo_dynamic_k_team	no_extra_recen		16.000	2	37.176	39.626	31.180	39.992	32.337	-27.698	1	coarse	1
pact_recency|k	elo_base_stat	compact_recen	30.000	16.000	2	37.180	39.579	31.133	40.075	32.407	-27.704	1	coarse	1
pact_recency|k	elo_dynamic	compact_recen	30.000	16.000	2	37.180	39.579	31.133	40.075	32.407	-27.704	1	coarse	1
compact_recen	elo_dynamic_k_te	compact_recen	30.000	16.000	2	37.180	39.579	31.133	40.075	32.407	-27.704	1	coarse	1
cay|compact_re	elo_dynamic_k_team	compact_recen	30.000	16.000	2	37.180	39.579	31.133	40.075	32.407	-27.704	1	coarse	1
ull_recency|hl=	elo_base_stat	full_recency	60.000	16.000	2	37.208	39.567	31.126	40.185	32.505	-27.637	1	coarse	1
ll_recency|hl=	elo_dynamic_	full_recency	60.000	16.000	2	37.208	39.567	31.126	40.185	32.505	-27.637	1	coarse	1
ha|full_recency	elo_dynamic_k_te	full_recency	60.000	16.000	2	37.208	39.567	31.126	40.185	32.505	-27.637	1	coarse	1
pact_recency|hl	elo_base_stat	compact_recen		16.000	2	37.210	39.626	31.180	40.087	32.429	-27.698	1	coarse	1

6. Core scan results (top rows) (2/4)

candidate_ke	elo_variant	feature_profil	half_life_days	ridge_alpha	histgb_idx	scan_score	scan_histgb_sco	scan_histgb_sco	scan_ridge_rm	scan_ridge_sco	scan_shared_std_gap	scan_splits_use	scan_stage	outer_fold
act_recency|hl	elo_dynamic	compact_recen		16.000	2	37.210	39.626	31.180	40.087	32.429	-27.698	1	coarse	1
ompact_recency	elo_dynamic_k_te	compact_recen		16.000	2	37.210	39.626	31.180	40.087	32.429	-27.698	1	coarse	1
y|compact_rec	elo_dynamic_k_team	compact_recen		16.000	2	37.210	39.626	31.180	40.087	32.429	-27.698	1	coarse	1
ull_recency|hl=	elo_base_stat	full_recency	30.000	16.000	2	37.216	39.579	31.133	40.179	32.494	-27.704	1	coarse	1
ll_recency|hl=	elo_dynamic	full_recency	30.000	16.000	2	37.216	39.579	31.133	40.179	32.494	-27.704	1	coarse	1
na|full_recency	elo_dynamic_k_te	full_recency	30.000	16.000	2	37.216	39.579	31.133	40.179	32.494	-27.704	1	coarse	1
l_recency|hl=	elo_base_stat	full_recency		16.000	2	37.246	39.626	31.180	40.191	32.515	-27.698	1	coarse	1
l_recency|hl=	elo_dynamic	full_recency		16.000	2	37.246	39.626	31.180	40.191	32.515	-27.698	1	coarse	1
a|full_recency	elo_dynamic_k_te	full_recency		16.000	2	37.246	39.626	31.180	40.191	32.515	-27.698	1	coarse	1
extra_recency|	elo_base_stat	no_extra_recen	60.000	4.000	2	37.573	39.567	31.126	41.227	33.554	-27.637	1	coarse	1
extra_recency|	elo_dynamic	no_extra_recen	60.000	4.000	2	37.573	39.567	31.126	41.227	33.554	-27.637	1	coarse	1
|no_extra_rec	elo_dynamic_k_te	no_extra_recen	60.000	4.000	2	37.573	39.567	31.126	41.227	33.554	-27.637	1	coarse	1
cay|no_extra_	elo_dynamic_k_team	no_extra_recen	60.000	4.000	2	37.573	39.567	31.126	41.227	33.554	-27.637	1	coarse	1
extra_recency|	elo_base_stat	no_extra_recen	30.000	4.000	2	37.580	39.579	31.133	41.219	33.545	-27.704	1	coarse	1
extra_recency|	elo_dynamic	no_extra_recen	30.000	4.000	2	37.580	39.579	31.133	41.219	33.545	-27.704	1	coarse	1
|no_extra_rec	elo_dynamic_k_te	no_extra_recen	30.000	4.000	2	37.580	39.579	31.133	41.219	33.545	-27.704	1	coarse	1
cay|no_extra_	elo_dynamic_k_team	no_extra_recen	30.000	4.000	2	37.580	39.579	31.133	41.219	33.545	-27.704	1	coarse	1
mpact_recency|	elo_base_stat	compact_recen	60.000	4.000	2	37.587	39.567	31.126	41.268	33.582	-27.637	1	coarse	1
mpact_recency|	elo_dynamic	compact_recen	60.000	4.000	2	37.587	39.567	31.126	41.268	33.582	-27.637	1	coarse	1
|compact_rec	elo_dynamic_k_te	compact_recen	60.000	4.000	2	37.587	39.567	31.126	41.268	33.582	-27.637	1	coarse	1
cay|compact_	elo_dynamic_k_team	compact_recen	60.000	4.000	2	37.587	39.567	31.126	41.268	33.582	-27.637	1	coarse	1
mpact_recency|	elo_base_stat	compact_recen	30.000	4.000	2	37.595	39.579	31.133	41.260	33.574	-27.704	1	coarse	1
mpact_recency|	elo_dynamic	compact_recen	30.000	4.000	2	37.595	39.579	31.133	41.260	33.574	-27.704	1	coarse	1
|compact_rec	elo_dynamic_k_te	compact_recen	30.000	4.000	2	37.595	39.579	31.133	41.260	33.574	-27.704	1	coarse	1

6. Core scan results (top rows) (3/4)

candidate_ke	elo_variant	feature_profil	half_life_days	ridge_alpha	histgb_idx	scan_score	scan_histgb_sc	scan_histgb_sc	scan_ridge_rm	scan_ridge_sca	scan_shared_std_gap	scan_splits_us	scan_stage	outer_fold
cay|compact_rec	elo_dynamic_k_team	compact_recen	30.000	4.000	2	37.595	39.579	31.133	41.260	33.574	-27.704	1	coarse	1
ull_recency|hl=e	elo_base_stat	full_recency	60.000	4.000	2	37.604	39.567	31.126	41.317	33.597	-27.637	1	coarse	1
ull_recency|hl=e	elo_dynamic_	full_recency	60.000	4.000	2	37.604	39.567	31.126	41.317	33.597	-27.637	1	coarse	1
ha|full_recency	elo_dynamic_k_te	full_recency	60.000	4.000	2	37.604	39.567	31.126	41.317	33.597	-27.637	1	coarse	1
xtra_recency|hl	elo_base_stat	ct_extra_recen		4.000	2	37.612	39.626	31.180	41.236	33.563	-27.698	1	coarse	1
xtra_recency|hl	elo_dynamic	ng_extra_recen		4.000	2	37.612	39.626	31.180	41.236	33.563	-27.698	1	coarse	1
no_extra_recen	elo_dynamic_k_te	ng_extra_recen		4.000	2	37.612	39.626	31.180	41.236	33.563	-27.698	1	coarse	1
ay|no_extra_rec	elo_dynamic_k_team	ng_extra_recen		4.000	2	37.612	39.626	31.180	41.236	33.563	-27.698	1	coarse	1
ull_recency|hl=e	elo_base_stat	full_recency	30.000	4.000	2	37.612	39.579	31.133	41.310	33.590	-27.704	1	coarse	1
ull_recency|hl=e	elo_dynamic_	full_recency	30.000	4.000	2	37.612	39.579	31.133	41.310	33.590	-27.704	1	coarse	1
ha|full_recency	elo_dynamic_k_te	full_recency	30.000	4.000	2	37.612	39.579	31.133	41.310	33.590	-27.704	1	coarse	1
pact_recency|hl	elo_base_stat	ct_compact_recen		4.000	2	37.626	39.626	31.180	41.276	33.591	-27.698	1	coarse	1
pact_recency|hl	elo_dynamic_	ng_compact_recen		4.000	2	37.626	39.626	31.180	41.276	33.591	-27.698	1	coarse	1
compact_recen	elo_dynamic_k_te	ng_compact_recen		4.000	2	37.626	39.626	31.180	41.276	33.591	-27.698	1	coarse	1
ay|compact_rec	elo_dynamic_k_team	ng_compact_recen		4.000	2	37.626	39.626	31.180	41.276	33.591	-27.698	1	coarse	1
ll_recency|hl=e	elo_base_stat	full_recency		4.000	2	37.642	39.626	31.180	41.324	33.605	-27.698	1	coarse	1
ll_recency|hl=e	elo_dynamic_	full_recency		4.000	2	37.642	39.626	31.180	41.324	33.605	-27.698	1	coarse	1
ha|full_recency	elo_dynamic_k_te	full_recency		4.000	2	37.642	39.626	31.180	41.324	33.605	-27.698	1	coarse	1
xtra_recency|hl	elo_base_stat	ct_extra_recen		16.000	1	37.830	40.953	32.421	39.992	32.337	-26.179	1	coarse	1
xtra_recency|hl	elo_dynamic	ng_extra_recen		16.000	1	37.830	40.953	32.421	39.992	32.337	-26.179	1	coarse	1
o_extra_recen	elo_dynamic_k_te	ng_extra_recen		16.000	1	37.830	40.953	32.421	39.992	32.337	-26.179	1	coarse	1
y|no_extra_rec	elo_dynamic_k_team	ng_extra_recen		16.000	1	37.830	40.953	32.421	39.992	32.337	-26.179	1	coarse	1
extra_recency|hl	elo_base_stat	ct_extra_recen	30.000	16.000	1	37.853	41.002	32.493	39.978	32.313	-26.200	1	coarse	1
xtra_recency|hl	elo_dynamic	ng_extra_recen	30.000	16.000	1	37.853	41.002	32.493	39.978	32.313	-26.200	1	coarse	1

6. Core scan results (top rows) (4/4)

candidate_ke	elo_variant	feature_profil	half_life_days	ridge_alpha	histgb_idx	scan_score	scan_histgb_bri	scan_histgb_ece	scan_ridge_rm	scan_ridge_bri	scan_shared_std_gap	scan_splits_use	scan_stage	outer_fold
no_extra_recency	elo	dynamic_k_tea	no_extra_recen	30.000	16.000	1	37.853	41.002	32.493	39.978	32.313	-26.200	1	coarse	1
cay|no_extra_re	elo	dynamic_k_team	no_extra_recen	30.000	16.000	1	37.853	41.002	32.493	39.978	32.313	-26.200	1	coarse	1
act_recency|ha	elo	base_stat	compact_recen		16.000	1	37.864	40.953	32.421	40.087	32.429	-26.179	1	coarse	1
act_recency|hl	elo	dynamic	compact_recen		16.000	1	37.864	40.953	32.421	40.087	32.429	-26.179	1	coarse	1
mpact_recency	elo	dynamic_k_tea	compact_recen		16.000	1	37.864	40.953	32.421	40.087	32.429	-26.179	1	coarse	1
y|compact_rec	elo	dynamic_k_team	compact_recen		16.000	1	37.864	40.953	32.421	40.087	32.429	-26.179	1	coarse	1
extra_recency|h	elo	base_stat	no_extra_recen	60.000	16.000	1	37.882	41.057	32.513	39.985	32.325	-26.122	1	coarse	1
xtra_recency|hl	elo	dynamic	no_extra_recen	60.000	16.000	1	37.882	41.057	32.513	39.985	32.325	-26.122	1	coarse	1

7. Elo variant comparisons (1/1)

elo_variant	scan_score_mean	scan_histgb_rmse_mean	scan_ridge_rmse_mean	n_configs
elo_base_static	42.617	45.079	44.868	298
elo_dynamic_k_teamha	42.803	45.377	45.093	222
elo_dynamic_k	42.814	45.387	45.105	223
elo_dynamic_k_teamha_decay	43.052	45.561	45.351	221

7. HistGB hyperparameter sweep summary (1/1)

histgb_idx	scan_score_mean	scan_histgb_rmse_mean	n	params
2	42.706	45.013	{'learning_rate': 0.03337	'max_depth': 4, 'max_leaf_nodes': 63, 'min_samples_leaf': 6,
1	42.626	45.084	{'learning_rate': 0.05312	'max_depth': 4, 'max_leaf_nodes': 31, 'min_samples_leaf': 8,
0	43.089	45.911	{'learning_rate': 0.04,315	'max_depth': 3, 'max_leaf_nodes': 31, 'min_samples_leaf': 10

8. Regime-specific stacking / calibration results (1/1)

use_regime_stack	calibration_mode	scale_mode	outer_rmse_mean	outer_mae_mean	outer_dispersion_ratio_mean	regime_gain_vs_pooled_me	n
False	pooled	pooled	41.206	32.791	0.000	0.000	6
True	regime	pooled	45.161	35.778	0.514	1.975	3
True	regime	regime	45.879	36.321	0.112	0.383	3

9. Dispersion and scale correction analysis (1/1)

outer_fold	stage	pred_std	actual_std	rmse
1	raw_mean	0.000	43.833	44.393
1	calibrated	32.182	43.833	49.012
1	scaled	22.528	43.833	45.161
1	final	22.528	43.833	45.161
2	raw_mean	0.000	42.297	42.400
2	calibrated	0.000	42.297	43.045
2	scaled	0.000	42.297	43.045
2	final	0.000	42.297	43.045
3	raw_mean	0.000	39.366	39.370
3	calibrated	0.000	39.366	39.438
3	scaled	0.000	39.366	39.367
3	final	0.000	39.366	39.367
4	raw_mean	0.000	45.945	45.954
4	calibrated	7.358	45.945	46.567
4	scaled	5.150	45.945	45.879
4	final	5.150	45.945	45.879

10. Shift diagnostics: Train recent vs Derby (1/1)

feature	train_recent_mean	derby_mean	train_recent_std	derby_std	ks_stat	ks_pvalue	psi	derby_outside_train_1_9	ood_flag
games_played_min	9.122	11.067	1.095	0.660	0.730	0.000	8.252	0.227	True
massey_diff	5.870	2.613	9.415	7.140	0.223	0.006	0.506	0.000	True
elo_diff_pre	60.795	-1.682	116.795	106.947	0.283	0.000	0.348	0.053	True
offdef_margin_neutr	0.581	-0.123	12.300	9.369	0.121	0.338	0.219	0.000	True
elo_neutral_diff_pre	5.795	-1.682	116.795	106.947	0.119	0.359	0.211	0.000	True
same_conf_flag	0.697	0.013	0.459	0.115	0.684	0.000	0.000	0.000	True
offdef_net_diff	0.534	-0.146	8.951	13.180	0.104	0.526	0.169	0.147	False
_margin_last5_vs_sea	-1.434	1.554	16.927	19.606	0.105	0.514	0.133	0.067	False
consistency_ratio_di	-0.016	0.050	0.329	0.347	0.122	0.335	0.061	0.013	False
volatility_sum	79.972	80.179	8.181	7.712	0.079	0.831	0.060	0.053	False

10. Shift Mitigation Notes

10. Shift mitigation rules
- Detected 6 OOD-like feature shifts (KS/PSI/out-of-range checks).
- Applied softer scaling (blend toward 1.0) and wider winsor bounds under OOD risk.

8. Regime weights (outer_fold_1_selected) (1/1)

level	regime	n	w_pred_ridge	w_pred_huber	w_pred_histgb	w_pred_histgb_bag
pooled	ALL	165	0.250	0.250	0.250	0.250
full	moderate|cross|lowinfo|highv	76	0.250	0.250	0.250	0.250
simple	moderate|cross|lowinfo	82	0.250	0.250	0.250	0.250
gap	moderate	114	0.250	0.250	0.250	0.250
gap	close	31	0.250	0.250	0.250	0.250

8. Regime weights (outer_fold_2_selected) (1/1)

level	regime	n	w_pred_ridge	w_pred_huber	w_pred_histgb	w_pred_histgb_bag
pooled	ALL	330	0.250	0.250	0.250	0.250

8. Regime weights (outer_fold_3_selected) (1/1)

level	regime	n	w_pred_ridge	w_pred_huber	w_pred_histgb	w_pred_histgb_bag
pooled	ALL	479	0.250	0.250	0.250	0.250

8. Regime weights (outer_fold_4_selected) (1/1)

level	regime	n	w_pred_ridge	w_pred_huber	w_pred_histgb	w_pred_histgb_bag
pooled	ALL	579	0.250	0.250	0.250	0.250
full	moderate|same|lowinfo|highv	48	0.250	0.250	0.250	0.250
simple	mismatch|same|lowinfo	71	0.250	0.250	0.250	0.250
simple	moderate|same|lowinfo	78	0.250	0.250	0.250	0.250
simple	close|same|lowinfo	68	0.250	0.250	0.250	0.250
simple	moderate|same|midinfo	64	0.250	0.250	0.250	0.250
simple	close|same|midinfo	47	0.250	0.250	0.250	0.250
simple	mismatch|same|midinfo	68	0.250	0.250	0.250	0.250
gap	mismatch	213	0.250	0.250	0.250	0.250
gap	moderate	196	0.250	0.250	0.250	0.250
gap	close	170	0.250	0.250	0.250	0.250

8. Calibration params (outer_fold_1_selected) (1/1)

level	regime	n	intercept	slope
pooled	ALL	165	24.281	0.300
full	moderate|cross|lowinfo|highvol	76	46.929	0.300
simple	moderate|cross|lowinfo	82	44.233	0.300
simple	moderate|same|lowinfo	32	13.495	0.300
gap	moderate	114	31.564	0.300
gap	close	31	-60.514	2.200

8. Calibration params (outer_fold_2_selected) (1/1)

level	regime	n	intercept	slope
pooled	ALL	330	-2.391	0.446

8. Calibration params (outer_fold_3_selected) (1/1)

level	regime	n	intercept	slope
pooled	ALL	479	5.904	0.300

8. Calibration params (outer_fold_4_selected) (1/1)

level	regime	n	intercept	slope
pooled	ALL	579	15.389	0.300
full	moderate|same|lowinfo|highvol	48	17.440	0.300
full	close|same|lowinfo|lowvol	38	-44.919	2.200
full	mismatch|same|lowinfo|lowvol	38	59.503	0.300
full	mismatch|same|midinfo|lowvol	37	-92.569	2.200
simple	mismatch|same|lowinfo	71	38.118	0.300
simple	moderate|same|lowinfo	78	30.123	0.300
simple	close|same|lowinfo	68	-26.803	2.017
simple	moderate|same|midinfo	64	12.338	0.300
simple	close|same|midinfo	47	-37.337	2.200
simple	mismatch|same|midinfo	68	-53.074	2.200
gap	mismatch	213	12.160	1.090
gap	moderate	196	16.036	0.300
gap	close	170	0.280	0.300

9. Scale params (outer_fold_1_selected) (1/1)

level	regime	n	scale
pooled	ALL	165	0.700

9. Scale params (outer_fold_2_selected) (1/1)

level	regime	n	scale
pooled	ALL	330	1.000

9. Scale params (outer_fold_3_selected) (1/1)

level	regime	n	scale
pooled	ALL	479	0.700

9. Scale params (outer_fold_4_selected) (1/1)

level	regime	n	scale
pooled	ALL	579	0.700
full	moderate|same|lowinfo|highvol	48	0.700
full	close|same|lowinfo|lowvol	38	0.700
full	mismatch|same|lowinfo|lowvol	38	0.700
full	mismatch|same|midinfo|lowvol	37	0.700
simple	mismatch|same|lowinfo	71	0.700
simple	moderate|same|lowinfo	78	0.700
simple	close|same|lowinfo	68	0.700
simple	moderate|same|midinfo	64	0.700
simple	close|same|midinfo	47	0.700
simple	mismatch|same|midinfo	68	0.700
gap	mismatch	213	0.700
gap	moderate	196	0.700
gap	close	170	0.700

11. Residual Diagnostics (Summary)

11. Residual diagnostics
- OOF final RMSE=43.557, MAE=34.523, Bias=-1.170
- Residual std=43.541, skew=-0.006, kurtosis=-0.104
- Mean-stack RMSE=43.180
- Quantile median (q50) RMSE=43.180
- Mean+median blend RMSE=43.180
- Calibrated RMSE=44.864
- Tail error threshold (top 10%)=70.832

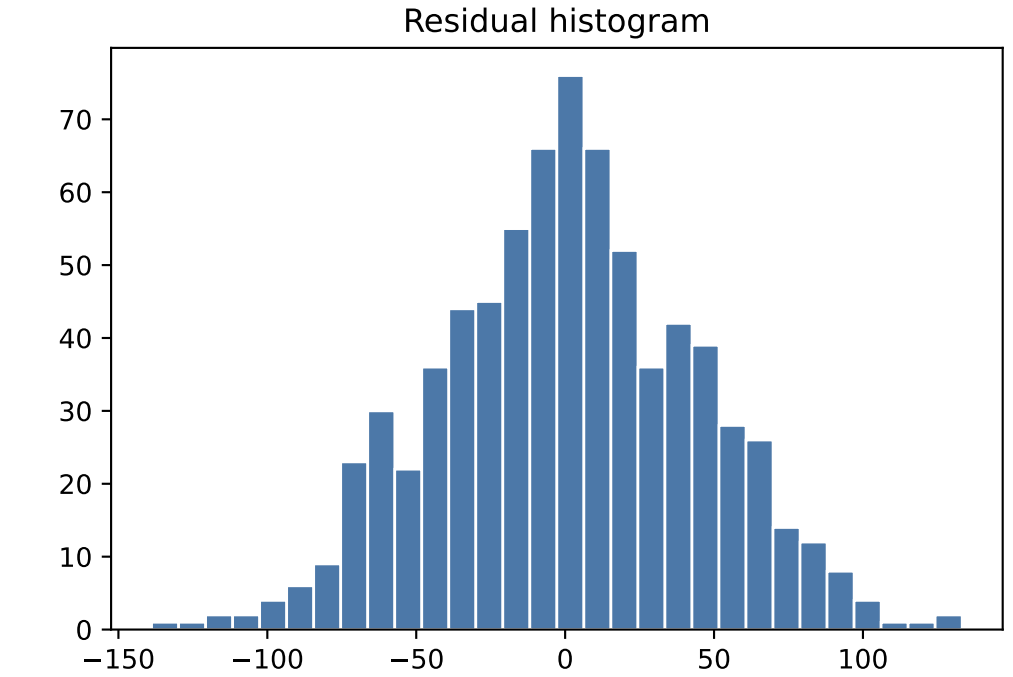
11. Tail error diagnostics (top 10% abs-error) (1/2)

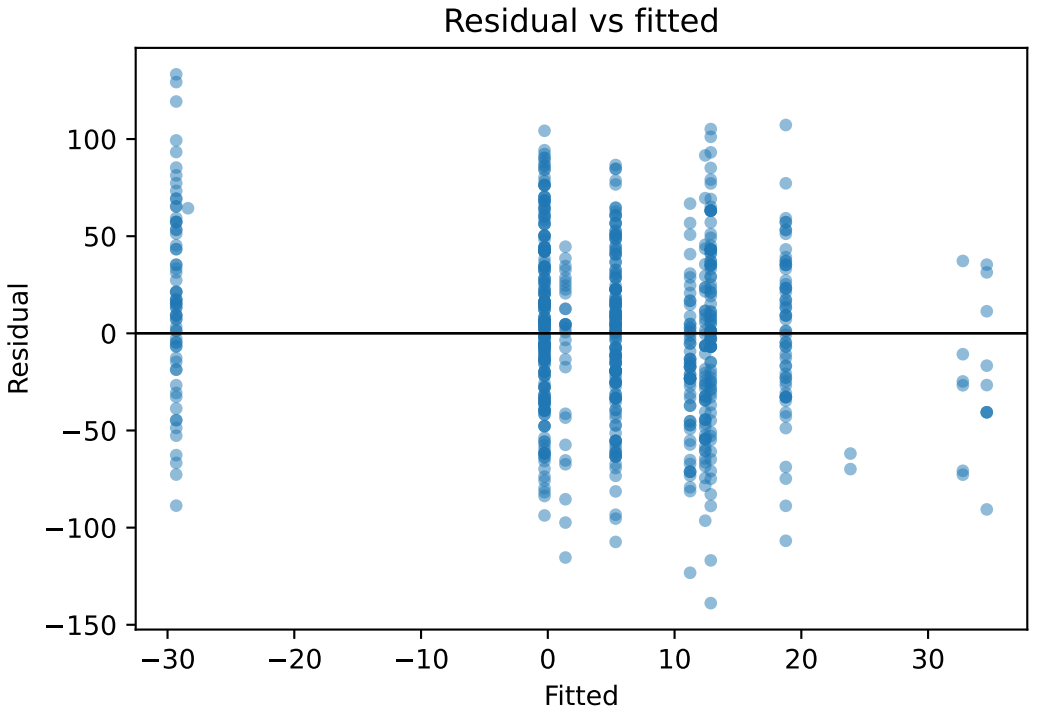
Date	elo_diff	mpass…	off_def_vol…	volatility…	volatility_…	games_played…	games_played…	same_conf…	[illegible]	recent…_last5	…_last5	consistency_r…	row_index	y_true	pred_rid…	pred_hub…	pred_hist	pred_histgb	pred_q5	outer_fold	pred_raw	pred_raw…	pred_calib	pred_sc…	core_f…	candid…	…process	abs_error
-06-16 0	-167.15	-9.930	6.396	38.677	38.611	10.000	10.000	1.000	0.000	15.400	15.625	-0.158	899	-126.00	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	138.855
-02-19 0	33.707	5.105	-0.185	39.430	40.629	3.000	3.000	1.000	0.000	0.000	0.000	-0.060	304	104.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	133.315
-03-04 0	16.546	6.279	5.758	42.922	37.813	4.000	4.000	1.000	0.000	0.000	0.000	0.160	385	100.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	129.315
-02-19 0	-52.086	3.178	-2.438	35.815	45.428	3.000	4.000	1.000	0.000	0.000	0.000	-0.577	267	-112.00	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	123.225
-03-17 0	-1.787	3.559	-1.720	32.227	39.306	5.000	4.000	1.000	0.000	0.000	0.000	-0.239	393	90.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	119.315
-06-16 0	-105.27	-4.658	11.524	31.552	43.786	11.000	11.000	0.000	1.000	11.745	11.615	-0.151	907	-104.00	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	116.855
-05-30 0	-29.812	-3.388	13.372	54.619	33.110	11.000	10.000	0.000	1.000	-3.582	-2.716	0.034	829	-114.00	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	115.391
-05-14 0	-120.73	-8.185	10.682	53.642	38.078	10.000	8.000	0.000	1.000	37.000	37.367	0.068	687	-102.00	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	107.352
-02-19 0	145.83	9.989	-2.685	42.170	44.713	4.000	2.000	1.000	0.000	0.000	0.000	0.110	269	126.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	107.224
-03-03 0	-102.67	-1.041	7.850	30.946	59.362	5.000	3.000	1.000	0.000	0.000	0.000	-0.683	324	-88.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	106.776
-06-16 0	236.51	13.213	-1.727	51.437	31.061	10.000	10.000	1.000	0.000	-38.80	-39.87	0.540	903	118.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	105.145
-04-02 0	187.37	11.769	-2.819	47.386	39.679	5.000	7.000	1.000	0.000	-0.857	-0.464	-0.080	488	104.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	104.260
-06-16 0	260.98	19.476	-0.680	41.080	49.319	9.000	10.000	1.000	0.000	-10.80	-11.46	-0.486	890	114.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=re	101.145
-03-04 0	24.773	7.286	-14.54	40.629	32.133	3.000	4.000	1.000	0.000	0.000	0.000	0.493	382	70.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	99.315
-06-27 0	-30.288	0.550	5.247	35.427	44.416	10.000	11.000	0.000	1.000	-18.69	-19.82	-0.058	928	-96.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	97.391
-06-12 0	-40.552	-2.084	7.176	39.350	37.422	11.000	11.000	1.000	0.000	-10.03	-9.635	-0.165	847	-84.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	96.420
-04-30 0	-165.25	-9.174	8.498	36.955	38.999	8.000	8.000	1.000	0.000	11.000	11.820	-0.337	621	-90.000	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	95.352
-04-02 0	5.743	1.064	1.533	34.739	35.047	5.000	5.000	0.000	1.000	0.000	0.000	-0.014	495	94.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	94.260
-04-02 0	97.864	3.835	3.283	53.063	38.189	4.000	6.000	1.000	0.000	11.200	11.109	0.479	491	-94.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	93.740
-05-15 0	-138.18	-4.376	11.491	47.643	46.787	8.000	8.000	0.000	1.000	-43.20	-42.914	0.218	697	-88.000	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=po	93.352
-02-19 0	23.466	8.292	2.722	37.659	54.976	3.000	4.000	0.000	1.000	0.000	0.000	-0.510	289	64.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…ale=po	93.315
-06-12 0	245.05	15.431	-3.011	34.941	36.443	8.000	10.000	1.000	0.000	-8.500	-7.638	0.056	851	106.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	…cale=reg	93.145

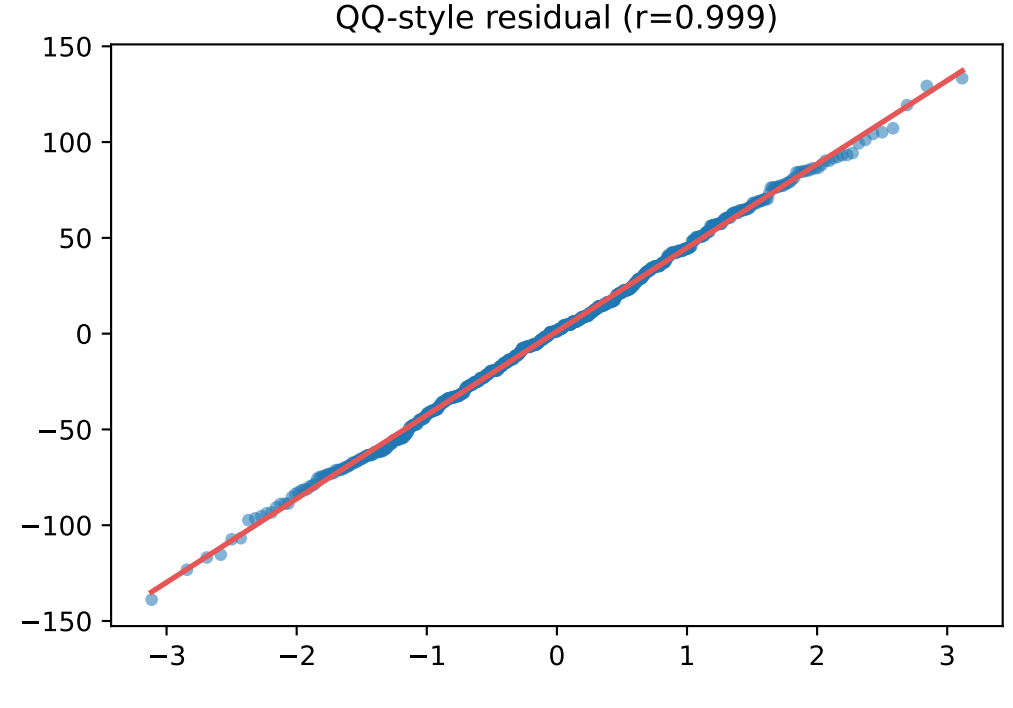
11. Tail error diagnostics (top 10% abs-error) (2/2)

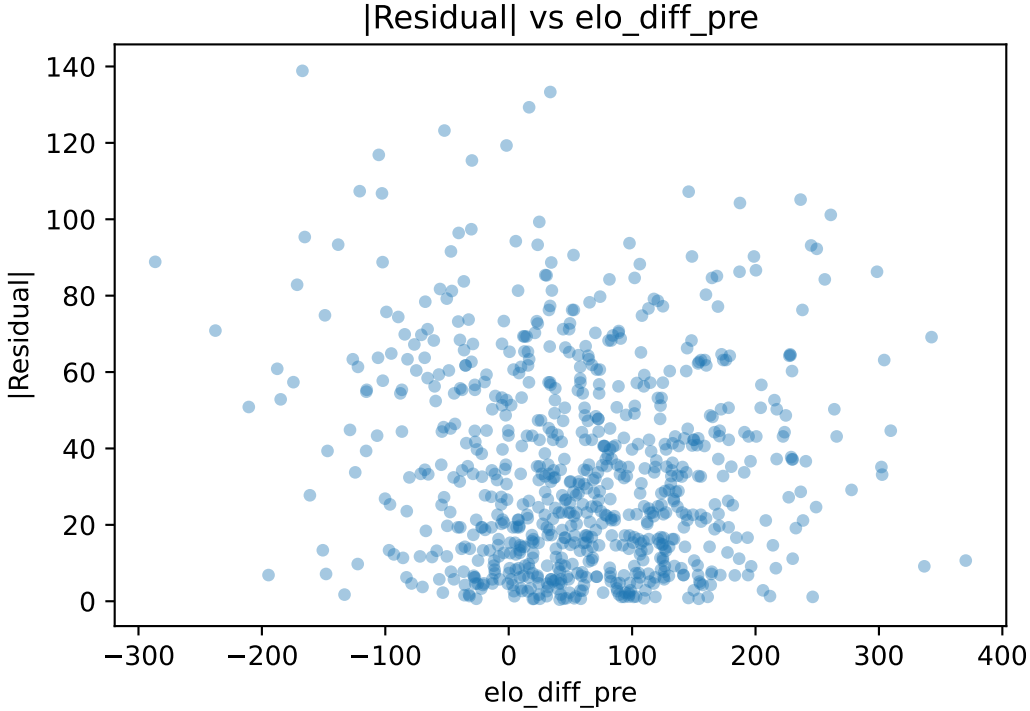
Date	elo_diff	massey	off_	def_vol	volatility	games	games_played	same_conf	conf	last5	last5	consistency	row_index	y_true	pred_ridge	pred_hgb	pred_hist	pred_histgb	pred_q5	cluster	pred_raw	pred_raw_	pred_calib	pred_sca	pred_final	candidate	postprocess	abs_error
-04-15 0	249.61	12.967	-7.429	41.974	32.671	6.000	7.000	0.000	1.000	5.819	5.489	0.167	539	92.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	92.260
-05-30 0	-46.805	0.194	6.930	31.860	35.517	8.000	9.000	1.000	0.000	-12.06	-11.648	0.256	804	104.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=reg	91.580
-02-05 0	62.505	5.686	1.355	45.000	45.000	1.000	1.000	0.000	1.000	0.000	0.000	0.000	204	-56.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	90.629
-03-18 0	148.48	9.978	-6.175	36.494	38.173	3.000	4.000	1.000	0.000	0.000	0.000	-0.294	428	90.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	90.260
-04-02 0	198.71	11.882	11.785	35.900	41.422	6.000	6.000	1.000	0.000	-1.067	-1.042	-0.270	494	90.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	90.260
-05-30 0	-286.43	15.521	-5.617	34.254	37.183	9.000	10.000	1.000	0.000	5.533	6.654	0.477	799	-76.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=reg	88.855
-02-19 0	-102.19	-0.898	4.500	35.002	36.362	3.000	3.000	1.000	0.000	0.000	0.000	-0.250	276	-70.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	88.776
-02-05 0	34.478	5.851	-2.649	40.389	36.230	2.000	3.000	1.000	0.000	0.000	0.000	0.019	236	-118.00	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	88.685
-04-01 0	106.23	5.768	-0.777	47.998	40.114	4.000	5.000	1.000	0.000	0.000	0.000	0.114	457	88.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	88.260
-05-14 0	200.32	15.291	-7.841	33.951	51.442	8.000	7.000	1.000	0.000	35.179	35.489	0.326	684	92.000	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	86.648
-03-18 0	187.04	12.309	5.801	45.428	32.205	5.000	4.000	1.000	0.000	0.000	0.000	0.712	429	86.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	86.260
-04-02 0	298.44	13.929	-5.374	30.850	37.962	5.000	5.000	1.000	0.000	0.000	0.000	-0.395	503	86.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	86.260
-06-12 0	29.641	1.291	-0.829	37.835	50.470	11.000	9.000	0.000	1.000	27.947	28.361	0.353	861	-84.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=reg	85.391
-02-05 0	30.737	4.669	-3.791	41.458	39.201	2.000	2.000	1.000	0.000	0.000	0.000	0.329	244	56.000	8.471	8.471	8.471	8.471	8.471	1	8.471	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	85.315
-06-27 0	168.71	11.146	-5.242	31.845	41.284	10.000	10.000	1.000	0.000	14.000	14.856	-0.280	916	98.000	5.692	5.692	5.692	5.692	5.692	4	5.692	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=reg	85.145
-05-16 0	102.04	15.038	11.445	55.938	31.947	9.000	9.000	1.000	0.000	7.511	7.944	0.849	718	90.000	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	84.648
-05-16 0	164.70	14.166	2.109	36.555	36.220	8.000	9.000	1.000	0.000	-5.178	-5.489	0.147	722	90.000	5.805	5.805	5.805	5.805	5.805	3	5.805	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	84.648
-03-18 0	81.623	6.261	-1.559	48.588	44.935	6.000	5.000	1.000	0.000	-17.26	-17.404	-0.321	405	84.000	4.777	4.777	4.777	4.777	4.777	2	4.777	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	cale=po	84.260

11. Residual diagnostics plots









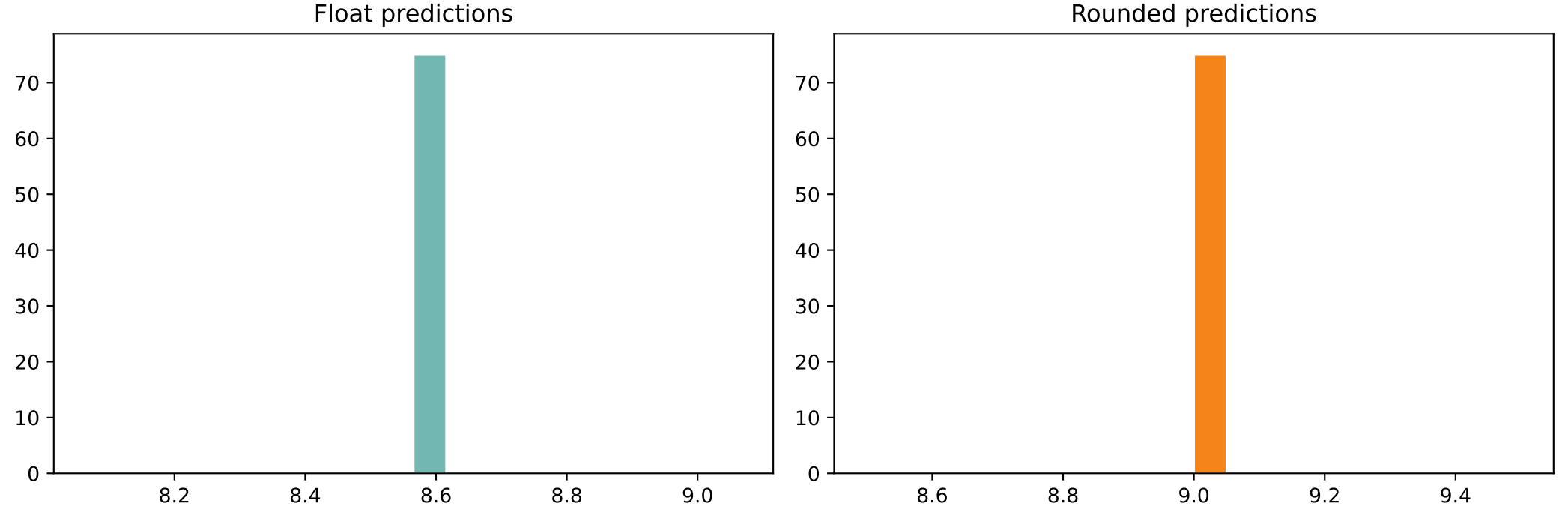
12-14. Final Decisions / Limitations / Next Steps

12. Final derby prediction distribution
- count=75, mean=8.566, std=0.000
- min=8.566, max=8.566
- quantiles 1/5/25/50/75/95/99 = 8.566, 8.566, 8.566, 8.566, 8.566, 8.566, 8.566

13. Final decisions and rationale
- Final core candidate: elo_base_static|no_extra_recency|hl=none|ridge=4|hgb=0
- Final postprocess candidate: stack=pool|cal=pooled|scale=pooled|q50=0.00|win=0.000
- Recency profile=no_extra_recency | half_life=None
- Shift mitigation applied=True
- Dispersion guard applied=False

14. Limitations + next steps
- Derby labels hidden: final selection relies on nested train-only proxies.
- No injuries/lineups/travel features available.
- Future work: monotone piecewise regime calibration and richer Bayesian uncertainty.

12. Final derby prediction distribution



Appendix A. First 10 rows of predictions.csv (1/1)

GameID	Date	Team1_Conf	Team1_ID	Team1	Team2_Conf	Team2_ID	Team2	Team1_WinMargin
1941	7/4/2025	Purple	68	Idaho	Yellow	119	Houston	9
1942	7/4/2025	White	105	Helena	Yellow	120	Iowa	9
1943	7/4/2025	Red	82	Jackson	Purple	67	Concord	9
1944	7/4/2025	White	108	Montpelier	Yellow	129	West Virginia	9
1945	7/4/2025	Yellow	121	Lansing	White	113	South Dakota	9
1946	7/4/2025	Crimson	21	Lincoln	Yellow	118	Florida	9
1947	7/4/2025	Yellow	117	Columbia	Crimson	23	Nashville	9
1948	7/4/2025	Orange	63	New Jersey	Yellow	126	Pierre	9
1949	7/4/2025	Purple	77	Wilmington	Orange	58	Honolulu	9
1950	7/4/2025	Crimson	22	Michigan	Green	49	Natchez	9

Appendix B. Top 20 rankings by Rank (1/1)

TeamID	Team	Rank
45	Boise City	1
94	Kentucky	2
2	Baton Rouge	3
40	Pennsylvania	4
26	Phoenix	5
153	Tokyo	6
36	Massachusetts	7
90	Big Sur	8
37	Minnesota	9
137	Milan	10
92	Illinois	11
88	Port St. Lucie	12
116	California	13
149	Seoul	14
84	Mississippi	15
131	Belgrade	16
19	Georgia	17
54	Boise	18
46	Boston	19
22	Michigan	20

Appendix C. Selected hyperparameters (1/1)

name	value
elo_variant	elo_base_static
feature_profile	no_extra_recency
half_life_days	none
ridge_alpha	4.0
histgb_idx	0
histgb_params	{'learning_rate': 0.04, 'max_depth': 3, 'max_leaf_nodes': 31, 'min_samples_leaf': 10, 'l2_regularization': 0.3, 'ma
postprocess	stack=pool|cal=pooled|scale=pooled|q50=0.00|win=0.000
winsor_bounds	(-116.61, 113.305)
dispersion_guard_factor	1.0
seed	23
OMP_NUM_THREADS	1
MKL_NUM_THREADS	1

Appendix D. Final derby stage outputs (head) (1/1)

Date	elo_diff_	massey_	off_def_net	volatility_h	volatility_a	games_played	games_played	same_conf	cross_conf	margin_last5	adj_last5	consistency	row_index	pred_ridge	pred_hgb	pred_hist	pred_histgb	pred_q5	pred_q2	pred_q8	stage_raw	stage_raw	stage_calib	stage_score	stage_fin	quantile_spread_q8
-07-04 0	43.078	1.048	11.657	39.236	34.183	11.000	12.000	0.000	1.000	11.839	13.316	0.426	0	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	68.043	7.978	10.160	42.242	43.220	10.000	12.000	0.000	1.000	-20.800	-21.682	-0.467	1	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	87.224	-0.778	3.992	58.844	32.430	11.000	13.000	0.000	1.000	9.849	10.424	0.237	2	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	15.439	1.821	-4.196	46.773	34.161	10.000	11.000	0.000	1.000	21.600	24.098	-0.037	3	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	67.830	-3.726	13.935	41.637	40.572	12.000	10.000	0.000	1.000	-5.000	-5.582	0.061	4	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	2.589	4.195	14.140	35.352	37.821	11.000	11.000	0.000	1.000	-21.527	-23.169	-0.358	5	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	23.655	3.020	4.223	42.719	42.228	11.000	11.000	0.000	1.000	-2.073	-1.452	0.114	6	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	57.995	6.854	6.264	39.767	37.135	10.000	11.000	0.000	1.000	7.418	6.321	-0.271	7	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	22.758	1.943	-10.391	44.235	43.803	11.000	11.000	0.000	1.000	-17.091	-16.594	0.054	8	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	151.568	9.602	-2.833	34.165	41.090	10.000	11.000	0.000	1.000	-12.927	-12.796	-0.213	9	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	34.313	3.695	5.899	43.895	38.698	10.000	11.000	0.000	1.000	-3.855	-4.866	0.054	10	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	15.823	-0.562	0.597	36.599	41.445	11.000	11.000	0.000	1.000	-9.964	-12.467	-0.639	11	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	38.787	2.246	4.400	36.006	42.618	11.000	12.000	0.000	1.000	-0.827	-0.542	0.356	12	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	32.900	-0.129	10.062	38.414	37.570	12.000	11.000	0.000	1.000	-12.909	-14.100	0.475	13	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	36.972	6.107	3.527	37.749	36.023	11.000	11.000	0.000	1.000	1.200	1.388	0.242	14	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	11.850	1.577	9.629	37.819	39.878	11.000	11.000	0.000	1.000	-19.600	-20.834	-0.311	15	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	25.038	3.145	-22.228	33.892	40.833	12.000	11.000	0.000	1.000	11.533	12.274	-0.305	16	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	-0.292	1.485	14.102	58.387	41.216	11.000	12.000	0.000	1.000	41.327	41.731	-0.378	17	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	7.185	1.701	-6.721	37.420	39.167	11.000	11.000	0.000	1.000	2.327	1.919	0.072	18	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000
-07-04 0	10.782	0.006	-0.523	45.973	40.644	12.000	12.000	0.000	1.000	35.100	37.134	-0.638	19	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	5.853	10.077	8.566	8.566	0.000