**Rocketball Derby Final Report**

Timestamp (UTC): 2026-02-27T02:47:29.836702+00:00
Git hash: 1aaa14e93a225970a75736c5fd1f73a703e08fc3
Run metadata: C:\algosports23\AlgoSports23-Challenge\run_metadata.json
Selected config path: C:\algosports23\AlgoSports23-Challenge\selected_config.json
Selected config sha256: c9cd6d96cd2b0d5f61ce260a8899c833df412254a0e567abeb850e9350468520
Rating summary rows: 27
Model summary rows: 75
Selected outer-metric rows: 5

Selection lock
- Outer CV determines winning pipeline; full-train performs refit-only of locked choices.
- No re-selection at full train stage.
- Selection score: mean_rmse_w + lambda_tail*(mean_tail_rmse_w/mean_rmse_w) + lambda_xtail*(mean_xtail_rmse_w/mean_rmse_w) + lambda_disp*|log(disp_ratio_w)| + lambda_cap_hit*s_cap_hit_rate + lambda_tbias*|tail_bias_w| + lambda_tdisp*|log(tail_disp_ratio_w)| + lambda_stability*std_rmse.

Selected config (locked)

{
  "selection_lock": true,
  "elok_secondary_only": true,
  "selected_at": "2026-02-27T02:47:29.836702+00:00",
  "git_hash": "1aaa14e93a225970a75736c5fd1f73a703e08fc3",
  "outer_fold_count": 5,
  "rating_stage": {
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"massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0",
    "lambda_tail": 0.1,
    "lambda_xtail": 0.05,
    "lambda_stability": 0.1,
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    "lambda_cap_hit": 0.0,
    "lambda_tbias": 0.0,
    "lambda_tdisp": 0.05,
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      "elo_decay_g": 50.0
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"massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_affine_global",
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    "lambda_stability": 0.1,
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    "lambda_cap_hit": 0.0,
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    "model_spec": {
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      "params": {

```json
          "l1_ratio": 0.12,
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      "module": "expand_affine_global",
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      "massey_gate_reason": "",
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      "best_of_three_pool_count": 3
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    "oof_paths": {
      "csv": "C:\\algosports23\\AlgoSports23-Challenge\\oof_predictions.csv",
      "parquet": "C:\\algosports23\\AlgoSports23-Challenge\\oof_predictions.parquet"
    },
    "feature_set": "F2",
    "features": [
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lambda_xtail*(mean_xtail_rmse_w/mean_rmse_w) + lambda_disp*abs(log(mean_dispersion_ratio_w)) +
lambda_cap_hit*s_cap_hit_rate + lambda_tbias*abs(mean_tail_bias_w) +
lambda_tdisp*abs(log(mean_tail_dispersion_ratio_w)) + lambda_stability*std_rmse",
    "postprocessor_fit": {
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      "affine": {
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        "s_uncapped": 1.4268911371154784,
        "s_cap": 1.6,
        "s_cap_hit": false,
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        "eta": 0.7,
        "s_star": 1.0533373677158486,
        "a_star": 0.45915266436038316,
        "naive_r": 2.0384159101649693,
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    "derby_pred_distribution": {
      "n": 75,
      "mean": -4.373452657739398,
      "std": 26.904746835107705,
      "p05": -51.31226850216705,
```

## Rocketball Derby Final Report (cont.)

```
    "p50": -3.5257195759182114,
    "p95": 40.88380198654508
  },
  "runner_up_configs_path": "C:\\algosports23\\AlgoSports23-Challenge\\runner_up_configs.json"
}
```

# Validation Design

```
Nested expanding CV (leakage-safe)

Outer fold k:
  train(earlier dates) -----------------> val(later dates)
  1) Fit fold-local ratings/features on outer-train only.
  2) Train base regressor on outer-train.
  3) Build inner expanding splits within outer-train.
  4) Generate inner OOF base predictions.
  5) Fit postprocessor on inner OOF only.
  6) Apply postprocessor to outer-val predictions.

No game uses future outcomes for its own features/prediction.

Outer folds:
fold 1: train 2025-01-01..2025-01-12 | val 2025-01-23..2025-02-19
fold 2: train 2025-01-01..2025-02-19 | val 2025-03-03..2025-04-02
fold 3: train 2025-01-01..2025-04-02 | val 2025-04-14..2025-04-30
fold 4: train 2025-01-01..2025-04-30 | val 2025-05-13..2025-05-29
fold 5: train 2025-01-01..2025-05-29 | val 2025-05-30..2025-06-30
```

# Dispersion and Ratings

Affine dispersion correction derivation

Given $\hat{y} = a + s\,p$, minimize $E[(y - (a + s\,p))^2]$.

Set partial derivatives to zero:

  d/da: $E[y - a - s\,p] = 0 \rightarrow a = E[y] - s\,E[p]$

  d/ds: $E[p(y - a - s\,p)] = 0$

Substitute a and solve:

  $s^* = Cov(p, y)\,/\,Var(p)$

  $a^* = mean(y) - s^*\,mean(p)$

Fallback when covariance/variance unstable: $s \approx std(y)/std(p)$.

Illustrative prior baseline ratio std(y)/std(p): 1.668 (43.62/26.15).

Expansion slope rule (anti-compression under under-dispersion):

  r_base = std(p_oof_train) / std(y_train)

  if r_base < 0.90: choose s = max(1.0, eta * naive_r), eta in {0.55,0.60,0.65,0.70}

  where naive_r = std(y_train) / std(p_oof_train)

  else: s = clip(s_star, 0.8, 1.2)

  then recompute a = mean(y) - s*mean(p) with selected s

Rating methods

- Massey ridge anchor: margin = r_home - r_away + h + eps; neutral inference uses h=0.
- EloK is secondary feature only (pregame diff, optional linear K-decay).
- EloK is never allowed as standalone model family.

# Failure Analysis

Failure analysis of 308 run

- Early fold instability produced fold-1 RMSE blowups (observed near ~70).
- Affine slope expansion could overshoot in small-OOF folds (observed s near ~2.6).
- Over-dispersion appeared in selected configs (dispersion ratio > 1.05), hurting generalization.
- 1SE + simplicity-first tie-break could pick brittle configs over better-scoring alternatives.

# Guardrails Added

Guardrails added

- Stability lambda enforced: lambda_stability in {0.10, 0.20} (no zero).
- Selection uses weighted fold metrics (0.10,0.15,0.20,0.25,0.30) to emphasize late season.
- Eta search restricted to {0.55,0.60,0.65,0.70}; higher eta values (0.8/0.9/1.0) removed.
- Cap-hit penalty in score and cap-hit rejection gate to avoid selecting cap-bound calibrations.
- Hard gates: max_fold_rmse, fold1_rmse, mean_dispersion_ratio upper bound, tail-dispersion, under-dispersion expansion checks.
- Score-first 1SE tie-break: sort by score first, simplicity only as tie-break.
- Massey alpha grid hardened: removed alpha=0.1; using {1.0, 10.0, 50.0}.
- Expansion slope caps by inner OOF size: n<120=>1.25, <200=>1.35, <300=>1.45, else 1.60.
- CV-only over-dispersion correction: if fold disp>1.10 (or 1.15 for n_oof>=300), one-step slope shrink; reject if still above threshold.
- Piecewise tail eligibility gate: allowed only when max_fold_rmse<=45 and mean_disp in [0.75,1.00].

# Candidate Stability Summary (rows=75)

| config_id | mean_rmse | std_rmse | max_fold_rmse | fold1_rmse | mean_tail_rmse | mean_dispersion_ratio | mean_dispersion_ratio_w | mean_affine_s | mean_blowout_s | s_cap_hit_rate | cv_disp_guard_fail_rate | invalid_postprocess_rate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2 | 35.397225 | 3.635764 | 38.806889 | 38.806889 | 57.558260 | 0.543018 | 0.545595 | 1.314167 | 1.149699 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2_heterosk | 35.397225 | 3.635764 | 38.806889 | 38.806889 | 57.558260 | 0.543018 | 0.545595 | 1.314167 | 1.149699 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=none | 35.397225 | 3.635764 | 38.806889 | 38.806889 | 57.558260 | 0.543018 | 0.545595 | 1.314167 | NaN | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2 | 35.410288 | 3.640853 | 38.834574 | 38.834574 | 57.625227 | 0.540819 | 0.543347 | 1.318123 | 1.151964 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2_heterosk | 35.410288 | 3.640853 | 38.834574 | 38.834574 | 57.625227 | 0.540819 | 0.543347 | 1.318123 | 1.151964 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=none | 35.410288 | 3.640853 | 38.834574 | 38.834574 | 57.625227 | 0.540819 | 0.543347 | 1.318123 | NaN | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2 | 35.423440 | 3.645755 | 38.861912 | 38.861912 | 57.691894 | 0.538630 | 0.541109 | 1.322094 | 1.154774 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2_heterosk | 35.423440 | 3.645755 | 38.861912 | 38.861912 | 57.691894 | 0.538630 | 0.541109 | 1.322094 | 1.154774 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=none | 35.423440 | 3.645755 | 38.861912 | 38.861912 | 57.691894 | 0.538630 | 0.541109 | 1.322094 | NaN | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2 | 35.450690 | 3.346662 | 38.504167 | 38.504167 | 55.589930 | 0.636139 | 0.644698 | 1.193647 | 1.092794 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2_heterosk | 35.450690 | 3.346662 | 38.504167 | 38.504167 | 55.589930 | 0.636139 | 0.644698 | 1.193647 | 1.092794 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=none | 35.450690 | 3.346662 | 38.504167 | 38.504167 | 55.589930 | 0.636139 | 0.644698 | 1.193647 | NaN | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=expand_regime_affine_v2 | 35.451487 | 3.597242 | 39.104235 | 39.104235 | 56.311931 | 0.607687 | 0.623041 | 1.261864 | 1.151889 | 0.25 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=expand_regime_affine_v2_heterosk | 35.451487 | 3.597242 | 39.104235 | 39.104235 | 56.311931 | 0.607687 | 0.623041 | 1.261864 | 1.151889 | 0.25 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=none | 35.451487 | 3.597242 | 39.104235 | 39.104235 | 56.311931 | 0.607687 | 0.623041 | 1.261864 | NaN | 0.25 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=20.0\|\|module=expand_regime_affine_v2 | 35.506022 | 3.164759 | 38.140362 | 38.140362 | 55.133725 | 0.654124 | 0.657808 | 1.149118 | 1.065632 | 0.10 | 0.0 | 1.0 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=20.0\|\|module=expand_regime_affine_v2_heterosk | 35.506022 | 3.164759 | 38.140362 | 38.140362 | 55.133725 | 0.654124 | 0.657808 | | | | | |

# Candidate Stability Summary (rows=75) (cont.)

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35.506022 3.164759     38.140362   38.140362     55.133725           0.654124            0.657808
1.149118      NaN            0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2
35.635721 3.677317     39.166310   39.166310     58.907612           0.495362            0.497571
1.387712      1.212276       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
35.635721 3.677317     39.166310   39.166310     58.907612           0.495362            0.497571
1.387712      1.212276       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=none
35.635721 3.677317     39.166310   39.166310     58.907612           0.495362            0.497571
1.387712      NaN            0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2
35.656818 3.680898     39.199025   39.199025     58.992780           0.492614            0.494760
1.392218      1.216492       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
35.656818 3.680898     39.199025   39.199025     58.992780           0.492614            0.494760
1.392218      1.216492       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=none
35.656818 3.680898     39.199025   39.199025     58.992780           0.492614            0.494760
1.392218      NaN            0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2
35.677940 3.684277     39.231192   39.231192     59.077159           0.489893            0.491975
1.396731      1.221128       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
35.677940 3.684277     39.231192   39.231192     59.077159           0.489893            0.491975
1.396731      1.221128       0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=none
35.677940 3.684277     39.231192   39.231192     59.077159           0.489893            0.491975
1.396731      NaN            0.25              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2
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1.113936      1.051296       0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2_heterosk
35.714014 3.105493     38.419761   38.419761     54.744674           0.670051            0.667360
1.113936      1.051296       0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=none
35.714014 3.105493     38.419761   38.419761     54.744674           0.670051            0.667360
1.113936      NaN            0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2
35.797551 3.160438     38.760474   38.760474     54.756863           0.671258            0.666211
1.108515      1.048090       0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2_heterosk
35.797551 3.160438     38.760474   38.760474     54.756863           0.671258            0.666211
1.108515      1.048090       0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=none
35.797551 3.160438     38.760474   38.760474     54.756863           0.671258            0.666211
1.108515      NaN            0.10              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_affine_global
35.830106 3.764932     39.533402   39.533402     55.923613           0.636597            0.655906
1.500000      NaN            1.00              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_affine_global
```

# Candidate Stability Summary (rows=75) (cont.)

```
35.837331  3.750334      39.503949    39.503949    55.806913           0.641371            0.660900
1.500000              NaN         1.00              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_affine_global
35.845935  3.735169      39.473887    39.473887    55.689208           0.646213            0.665960
1.500000              NaN         1.00              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_affine_global
35.944707  3.799243      39.477395    39.227631    54.688348           0.689171            0.698246
1.387712              NaN         0.25              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_affine_global
35.945073  3.796071      39.443932    39.253010    54.733554           0.687583            0.697124
1.392218              NaN         0.25              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_affine_global
35.945524  3.793061      39.411346    39.277876    54.778277           0.686012            0.696013
1.396731              NaN         0.25              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_affine_global
36.037145  3.924604      40.123582    39.097344    54.072606           0.714957            0.715351
1.314167              NaN         0.10              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_affine_global
36.044287  3.931124      40.132728    39.118740    54.107667           0.714237            0.714869
1.318123              NaN         0.10              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_affine_global
36.051360  3.937454      40.141637    39.139782    54.142387           0.713521            0.714389
1.322094              NaN         0.10              0.0                 0.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2
36.112412  3.688009      39.685828    39.685828    60.830592           0.429444            0.431078
1.500000      1.318242        1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
36.112412  3.688009      39.685828    39.685828    60.830592           0.429444            0.431078
1.500000      1.318242        1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=none
36.112412  3.688009      39.685828    39.685828    60.830592           0.429444            0.431078
1.500000              NaN         1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2
36.144474  3.689568      39.722910    39.722910    60.931760           0.426246            0.427812
1.500000      1.320070        1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
36.144474  3.689568      39.722910    39.722910    60.931760           0.426246            0.427812
1.500000      1.320070        1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=none
36.144474  3.689568      39.722910    39.722910    60.931760           0.426246            0.427812
1.500000              NaN         1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2
36.176588  3.691122      39.759263    39.759263    61.031774           0.423092            0.424590
1.500000      1.321902        1.00              0.0                 1.0
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
36.176588  3.691122      39.759263    39.759263    61.031774           0.423092            0.424590
1.500000      1.321902        1.00              0.0                 1.0
... (25 more rows)
```

# Model Benchmark Table Group 1 (Config, rows=75)

```
config_id                                                                           rating_config_id
model_config_id                                         module  massey_alpha  use_elo  elo_home_adv  elo_decay_a  elo_decay_g
model_name
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.12            expand_regime_affine_v2        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.12 expand_regime_affine_v2_heterosk        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.12                            none        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.1            expand_regime_affine_v2        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.1 expand_regime_affine_v2_heterosk        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.1                            none        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.08            expand_regime_affine_v2        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.08 expand_regime_affine_v2_heterosk        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.08                            none        1.0        1          60.0          0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=50.0||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=50.0            expand_regime_affine_v2        1.0        1          60.0          0.25          50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=50.0||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=50.0 expand_regime_affine_v2_heterosk        1.0        1          60.0          0.25          50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=50.0||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=50.0                            none        1.0        1          60.0          0.25          50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=100.0||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
```

```
ridge|alpha=100.0          expand_regime_affine_v2          1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=100.0||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=100.0 expand_regime_affine_v2_heterosk     1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=100.0||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=100.0                          none          1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=20.0          expand_regime_affine_v2          1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=20.0 expand_regime_affine_v2_heterosk     1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
ridge|alpha=20.0                           none          1.0     1      60.0      0.25       50.0
ridge
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.12          expand_regime_affine_v2          1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.12 expand_regime_affine_v2_heterosk     1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.12                          none          1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.1          expand_regime_affine_v2          1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.1 expand_regime_affine_v2_heterosk     1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.1                          none          1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.08          expand_regime_affine_v2          1.0     1      60.0      0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.08 expand_regime_affine_v2_heterosk     1.0     1      60.0      0.25
```

# Model Benchmark Table Group 1 (Config, rows=75) (cont.)

```
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.08                        none          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.35          expand_regime_affine_v2        1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.35 expand_regime_affine_v2_heterosk        1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.35                        none          1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.2          expand_regime_affine_v2          1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.2 expand_regime_affine_v2_heterosk        1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
huber|epsilon=1.2                        none          1.0      1        60.0        0.25        50.0
huber
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.08          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.1          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.12          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.12          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.1          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.0|l1_ratio=0.08          expand_affine_global          1.0      1        60.0        0.25
50.0 elasticnet
```

## Model Benchmark Table Group 1 (Config, rows=75) (cont.)

```
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.12          expand_affine_global          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.1          expand_affine_global          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_affine_global
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=0.7|l1_ratio=0.08          expand_affine_global          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.12          expand_regime_affine_v2          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.12 expand_regime_affine_v2_heterosk          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.12                          none          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.1          expand_regime_affine_v2          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.1 expand_regime_affine_v2_heterosk          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=none
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.1                          none          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.08          expand_regime_affine_v2          1.0      1         60.0         0.25
50.0 elasticnet
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0
elasticnet|alpha=1.5|l1_ratio=0.08 expand_regime_affine_v2_heterosk          1.0      1         60.0         0.25
50.0 elasticnet
... (25 more rows)
```

# Model Benchmark Table Group 2 (Metrics, rows=75)

| config_id | mean_rmse | mean_rmse_w | std_rmse | mean_mae | mean_mae_w | mean_tail_rmse | mean_tail_rmse_w | mean_xtail_rmse | mean_xtail_rmse_w | mean_dispersion_ratio | mean_dispersion_ratio_w | mean_tail_dispersion_ratio | mean_tail_dispersion_ratio_w | mean_bias | mean_bias_w | mean_tail_bias | mean_tail_bias_w | n_folds |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2 | 35.397225 | 34.866403 | 3.635764 | 27.976331 | 27.587178 | 57.558260 | 57.008262 | 65.498399 | 64.262545 | 0.543018 | 0.545595 | 0.379081 | 0.381886 | -1.180573 | -1.096548 | -9.408907 | -9.354729 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2_heterosk | 35.397225 | 34.866403 | 3.635764 | 27.976331 | 27.587178 | 57.558260 | 57.008262 | 65.498399 | 64.262545 | 0.543018 | 0.545595 | 0.379081 | 0.381886 | -1.180573 | -1.096548 | -9.408907 | -9.354729 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=none | 35.397225 | 34.866403 | 3.635764 | 27.976331 | 27.587178 | 57.558260 | 57.008262 | 65.498399 | 64.262545 | 0.543018 | 0.545595 | 0.379081 | 0.381886 | -1.180573 | -1.096548 | -9.408907 | -9.354729 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2 | 35.410288 | 34.878882 | 3.640853 | 27.985473 | 27.596551 | 57.625227 | 57.073780 | 65.567307 | 64.331051 | 0.540819 | 0.543347 | 0.377460 | 0.380260 | -1.156353 | -1.076513 | -9.392252 | -9.343377 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2_heterosk | 35.410288 | 34.878882 | 3.640853 | 27.985473 | 27.596551 | 57.625227 | 57.073780 | 65.567307 | 64.331051 | 0.540819 | 0.543347 | 0.377460 | 0.380260 | -1.156353 | -1.076513 | -9.392252 | -9.343377 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=none | 35.410288 | 34.878882 | 3.640853 | 27.985473 | 27.596551 | 57.625227 | 57.073780 | 65.567307 | 64.331051 | 0.540819 | 0.543347 | 0.377460 | 0.380260 | -1.156353 | -1.076513 | -9.392252 | -9.343377 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2 | 35.423440 | 34.891514 | 3.645755 | 27.995077 | 27.606560 | 57.691894 | 57.139119 | 65.636002 | 64.399441 | 0.538630 | 0.541109 | 0.375848 | 0.378643 | -1.132643 | -1.056916 | -9.375763 | -9.332101 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2_heterosk | 35.423440 | 34.891514 | 3.645755 | 27.995077 | 27.606560 | 57.691894 | 57.139119 | 65.636002 | 64.399441 | 0.538630 | 0.541109 | 0.375848 | 0.378643 | -1.132643 | -1.056916 | -9.375763 | -9.332101 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=none | 35.423440 | 34.891514 | 3.645755 | 27.995077 | 27.606560 | 57.691894 | 57.139119 | 65.636002 | 64.399441 | 0.538630 | 0.541109 | 0.375848 | 0.378643 | -1.132643 | -1.056916 | -9.375763 | -9.332101 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2 | 35.450690 | 34.928237 | 3.346662 | 28.052071 | 27.682469 | 55.589930 | 54.919335 | 63.507158 | 62.157037 | 0.636139 | 0.644698 | 0.445067 | 0.451406 | -2.356561 | -2.247598 | -9.961047 | -9.663081 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2_heterosk | 35.450690 | 34.928237 | 3.346662 | 28.052071 | 27.682469 | 55.589930 | 54.919335 | 63.507158 | 62.157037 | 0.636139 | 0.644698 | 0.445067 | 0.451406 | -2.356561 | -2.247598 | -9.961047 | -9.663081 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=none | 35.450690 | 34.928237 | 3.346662 | 28.052071 | 27.682469 | 55.589930 | 54.919335 | 63.507158 | 62.157037 | 0.636139 | 0.644698 | 0.445067 | 0.451406 | -2.356561 | -2.247598 | -9.961047 | -9.663081 | 5 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=expand_regime_affine_v2 | 35.451487 | 34.850616 | 3.597242 | 28.008931 | 27.586363 | 56.311931 | 55.323055 | 64.196191 | | | | | | | | | | |

```
62.531561              0.607687               0.623041                0.424473                 0.436196
-1.782870    -1.801865      -9.582360        -9.459741         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=100.0||module=expand_regime_affine_v2_heterosk
35.451487    34.850616  3.597242 28.008931    27.586363      56.311931       55.323055       64.196191
62.531561              0.607687               0.623041                0.424473                 0.436196
-1.782870    -1.801865      -9.582360        -9.459741         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=100.0||module=none
35.451487    34.850616  3.597242 28.008931    27.586363      56.311931       55.323055       64.196191
62.531561              0.607687               0.623041                0.424473                 0.436196
-1.782870    -1.801865      -9.582360        -9.459741         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=expand_regime_affine_v2
35.506022    35.040690  3.164759 28.132524    27.793639      55.133725       54.732391       63.118267
62.015266              0.654124               0.657808                0.458208                 0.460464
-2.871692    -2.626699      -10.247815       -9.812639         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=expand_regime_affine_v2_heterosk
35.506022    35.040690  3.164759 28.132524    27.793639      55.133725       54.732391       63.118267
62.015266              0.654124               0.657808                0.458208                 0.460464
-2.871692    -2.626699      -10.247815       -9.812639         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=none
35.506022    35.040690  3.164759 28.132524    27.793639      55.133725       54.732391       63.118267
62.015266              0.654124               0.657808                0.458208                 0.460464
-2.871692    -2.626699      -10.247815       -9.812639         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2
35.635721    35.121865  3.677317 28.155474    27.784936      58.907612       58.362195       66.912298
65.693185              0.495362               0.497571                0.344975                 0.347708
-0.789195    -0.775276      -9.078389        -9.125340         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
35.635721    35.121865  3.677317 28.155474    27.784936      58.907612       58.362195       66.912298
65.693185              0.495362               0.497571                0.344975                 0.347708
-0.789195    -0.775276      -9.078389        -9.125340         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=none
35.635721    35.121865  3.677317 28.155474    27.784936      58.907612       58.362195       66.912298
65.693185              0.495362               0.497571                0.344975                 0.347708
-0.789195    -0.775276      -9.078389        -9.125340         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2
35.656818    35.143281  3.680898 28.172622    27.802349      58.992780       58.447429       67.000403
65.782407              0.492614               0.494760                0.342970                 0.345684
-0.765424    -0.755966      -9.058949        -9.111645         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
35.656818    35.143281  3.680898 28.172622    27.802349      58.992780       58.447429       67.000403
65.782407              0.492614               0.494760                0.342970                 0.345684
-0.765424    -0.755966      -9.058949        -9.111645         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=none
35.656818    35.143281  3.680898 28.172622    27.802349      58.992780       58.447429       67.000403
65.782407              0.492614               0.494760                0.342970                 0.345684
-0.765424    -0.755966      -9.058949        -9.111645         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2
35.677940    35.164788  3.684277 28.189667    27.819569      59.077159       58.531978       67.087785
65.870982              0.489893               0.491975                0.340985                 0.343681
-0.742228    -0.737136      -9.039777        -9.098105         5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
35.677940    35.164788  3.684277 28.189667    27.819569      59.077159       58.531978       67.087785
65.870982              0.489893               0.491975                0.340985                 0.343681
```

```
-0.742228    -0.737136      -9.039777       -9.098105        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=none
35.677940    35.164788 3.684277 28.189667    27.819569       59.077159         58.531978         67.087785
65.870982              0.489893                0.491975                  0.340985                    0.343681
-0.742228    -0.737136      -9.039777       -9.098105        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2
35.714014    35.243550 3.105493 28.229386    27.931222       54.744674         54.627891         62.818736
61.978736              0.670051                0.667360                  0.471917                    0.468251
-3.384002    -3.154221      -10.528487      -10.163198       5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2_heterosk
35.714014    35.243550 3.105493 28.229386    27.931222       54.744674         54.627891         62.818736
61.978736              0.670051                0.667360                  0.471917                    0.468251
-3.384002    -3.154221      -10.528487      -10.163198       5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=none
35.714014    35.243550 3.105493 28.229386    27.931222       54.744674         54.627891         62.818736
61.978736              0.670051                0.667360                  0.471917                    0.468251
-3.384002    -3.154221      -10.528487      -10.163198       5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2
35.797551    35.299027 3.160438 28.308425    27.983921       54.756863         54.691820         62.779257
61.992715              0.671258                0.666211                  0.472971                    0.467180
-3.185972    -3.025876      -10.294181      -9.996371        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2_heterosk
35.797551    35.299027 3.160438 28.308425    27.983921       54.756863         54.691820         62.779257
61.992715              0.671258                0.666211                  0.472971                    0.467180
-3.185972    -3.025876      -10.294181      -9.996371        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=none
35.797551    35.299027 3.160438 28.308425    27.983921       54.756863         54.691820         62.779257
61.992715              0.671258                0.666211                  0.472971                    0.467180
-3.185972    -3.025876      -10.294181      -9.996371        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_affine_global
35.830106    35.160254 3.764932 28.390072    27.954711       55.923613         54.658822         63.467006
61.441711              0.636597                0.655906                  0.442063                    0.457316
-1.121738    -0.832978      -9.708558       -9.477467        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_affine_global
35.837331    35.170050 3.750334 28.395851    27.965717       55.806913         54.538241         63.341363
61.309202              0.641371                0.660900                  0.445482                    0.460870
-1.110755    -0.814160      -9.695538       -9.453563        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_affine_global
35.845935    35.181573 3.735169 28.402195    27.977463       55.689208         54.416890         63.213369
61.173861              0.646213                0.665960                  0.448938                    0.464454
-1.099901    -0.795490      -9.683287       -9.430856        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_affine_global
35.944707    35.265046 3.799243 28.518138    28.079220       54.688348         53.671063         62.118894
60.332273              0.689171                0.698246                  0.480557                    0.488269
-0.938902    -0.522264      -9.415731       -9.004297        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_affine_global
35.945073    35.265177 3.796071 28.511672    28.073876       54.733554         53.702413         62.164851
60.365115              0.687583                0.697124                  0.479314                    0.487392
-0.946423    -0.535764      -9.432705       -9.028620        5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_affine_global
35.945524    35.265396 3.793061 28.505251    28.068530       54.778277         53.733498         62.210403
60.397723              0.686012                0.696013                  0.478085                    0.486524
-0.953892    -0.549110      -9.449240       -9.052404        5
```

## Model Benchmark Table Group 2 (Metrics, rows=75) (cont.)

```
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_affine_global
36.037145    35.331401  3.924604 28.682522    28.202018         54.072606         53.277961         61.476620
59.910030                0.714957                0.715351                    0.499965                    0.501239
-0.828459    -0.328683      -9.175893        -8.649393      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_affine_global
36.044287    35.336413  3.931124 28.684449    28.202858         54.107667         53.301186         61.511596
59.934501                0.714237                0.714869                    0.499366                    0.500844
-0.838611    -0.343040      -9.195946        -8.675014      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_affine_global
36.051360    35.341406  3.937454 28.686158    28.203545         54.142387         53.324267         61.546308
59.958853                0.713521                0.714389                    0.498772                    0.500451
-0.848686    -0.357240      -9.215560        -8.700114      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2
36.112412    35.640670  3.688009 28.516062    28.186286         60.830592         60.327175         68.948774
67.785287                0.429444                0.431078                    0.298143                    0.300608
-0.356179    -0.424346      -8.647822        -8.814291      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
36.112412    35.640670  3.688009 28.516062    28.186286         60.830592         60.327175         68.948774
67.785287                0.429444                0.431078                    0.298143                    0.300608
-0.356179    -0.424346      -8.647822        -8.814291      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=none
36.112412    35.640670  3.688009 28.516062    28.186286         60.830592         60.327175         68.948774
67.785287                0.429444                0.431078                    0.298143                    0.300608
-0.356179    -0.424346      -8.647822        -8.814291      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2
36.144474    35.674262  3.689568 28.542595    28.213993         60.931760         60.429945         69.052721
67.892133                0.426246                0.427812                    0.295850                    0.298289
-0.334437    -0.406979      -8.626788        -8.799434      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
36.144474    35.674262  3.689568 28.542595    28.213993         60.931760         60.429945         69.052721
67.892133                0.426246                0.427812                    0.295850                    0.298289
-0.334437    -0.406979      -8.626788        -8.799434      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=none
36.144474    35.674262  3.689568 28.542595    28.213993         60.931760         60.429945         69.052721
67.892133                0.426246                0.427812                    0.295850                    0.298289
-0.334437    -0.406979      -8.626788        -8.799434      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2
36.176588    35.708055  3.691122 28.569413    28.242135         61.031774         60.531785         69.154939
67.997124                0.423092                0.424590                    0.293582                    0.295989
-0.313569    -0.390508      -8.607013        -8.786119      5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
36.176588    35.708055  3.691122 28.569413    28.242135         61.031774         60.531785         69.154939
67.997124                0.423092                0.424590                    0.293582                    0.295989
-0.313569    -0.390508      -8.607013        -8.786119      5
... (25 more rows)
```

# Model Benchmark Table Group 3 (Postprocessing, rows=75)

| config_id | mean_base_rmse | mean_base_tail_rmse | mean_affine_s | mean_affine_eta | mean_affine_r_base | mean_affine_naive_r | s_cap_hit_rate | mean_tail_t | mean_tail_k | mean_tail_q | invalid_postprocess_rate | simplicity_rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2 | 35.397225 | 57.558260 | 1.314167 | 0.70 | 0.494875 | 2.068563 | 0.10 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=expand_regime_affine_v2_heterosk | 35.397225 | 57.558260 | 1.314167 | 0.70 | 0.494875 | 2.068563 | 0.10 | NaN | NaN | NaN | 1.0 | 2 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.12\|\|module=none | 35.397225 | 57.558260 | 1.314167 | 0.70 | 0.494875 | 2.068563 | 0.10 | NaN | NaN | NaN | 1.0 | 99 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2 | 35.410288 | 57.625227 | 1.318123 | 0.70 | 0.493311 | 2.074151 | 0.10 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=expand_regime_affine_v2_heterosk | 35.410288 | 57.625227 | 1.318123 | 0.70 | 0.493311 | 2.074151 | 0.10 | NaN | NaN | NaN | 1.0 | 2 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.1\|\|module=none | 35.410288 | 57.625227 | 1.318123 | 0.70 | 0.493311 | 2.074151 | 0.10 | NaN | NaN | NaN | 1.0 | 99 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2 | 35.423440 | 57.691894 | 1.322094 | 0.70 | 0.491747 | 2.079807 | 0.10 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=expand_regime_affine_v2_heterosk | 35.423440 | 57.691894 | 1.322094 | 0.70 | 0.491747 | 2.079807 | 0.10 | NaN | NaN | NaN | 1.0 | 2 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|elasticnet\|alpha=0.7\|l1_ratio=0.08\|\|module=none | 35.423440 | 57.691894 | 1.322094 | 0.70 | 0.491747 | 2.079807 | 0.10 | NaN | NaN | NaN | 1.0 | 99 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2 | 35.450690 | 55.589930 | 1.193647 | 0.70 | 0.545620 | 1.938783 | 0.10 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=expand_regime_affine_v2_heterosk | 35.450690 | 55.589930 | 1.193647 | 0.70 | 0.545620 | 1.938783 | 0.10 | NaN | NaN | NaN | 1.0 | 2 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=50.0\|\|module=none | 35.450690 | 55.589930 | 1.193647 | 0.70 | 0.545620 | 1.938783 | 0.10 | NaN | NaN | NaN | 1.0 | 99 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=expand_regime_affine_v2 | 35.451487 | 56.311931 | 1.261864 | 0.70 | 0.497009 | 2.182786 | 0.25 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=expand_regime_affine_v2_heterosk | 35.451487 | 56.311931 | 1.261864 | 0.70 | 0.497009 | 2.182786 | 0.25 | NaN | NaN | NaN | 1.0 | 2 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=100.0\|\|module=none | 35.451487 | 56.311931 | 1.261864 | 0.70 | 0.497009 | 2.182786 | 0.25 | NaN | NaN | NaN | 1.0 | 99 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=20.0\|\|module=expand_regime_affine_v2 | 35.506022 | 55.133725 | 1.149118 | 0.70 | 0.573994 | 1.827094 | 0.10 | NaN | NaN | NaN | 1.0 | 1 |
| massey_alpha=1.0\|use_elo=1\|elo_home_adv=60.0\|elo_k=24.0\|elo_decay_a=0.25\|elo_decay_g=50.0\|\|ridge\|alpha=20.0\|\|module=expand_regime_affine_v2_heterosk | 35.506022 | 55.133725 | 1.149118 | 0.70 | 0.573994 | 1.827094 | 0.10 | NaN | NaN | NaN | 1.0 | 2 |

```
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||ridge|alpha=20.0||module=none
35.506022          55.133725      1.149118          0.70        0.573994          1.827094            0.10
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2
35.635721          58.907612      1.387712          0.70        0.457971          2.220514            0.25
NaN         NaN          NaN                    1.0            1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
35.635721          58.907612      1.387712          0.70        0.457971          2.220514            0.25
NaN         NaN          NaN                    1.0            2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=none
35.635721          58.907612      1.387712          0.70        0.457971          2.220514            0.25
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2
35.656818          58.992780      1.392218          0.70        0.455867          2.229891            0.25
NaN         NaN          NaN                    1.0            1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
35.656818          58.992780      1.392218          0.70        0.455867          2.229891            0.25
NaN         NaN          NaN                    1.0            2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=none
35.656818          58.992780      1.392218          0.70        0.455867          2.229891            0.25
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2
35.677940          59.077159      1.396731          0.70        0.453776          2.239330            0.25
NaN         NaN          NaN                    1.0            1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
35.677940          59.077159      1.396731          0.70        0.453776          2.239330            0.25
NaN         NaN          NaN                    1.0            2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=none
35.677940          59.077159      1.396731          0.70        0.453776          2.239330            0.25
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2
35.714014          54.744674      1.113936          0.68        0.586065          1.843122            0.10
NaN         NaN          NaN                    1.0            1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=expand_regime_affine_v2_heterosk
35.714014          54.744674      1.113936          0.68        0.586065          1.843122            0.10
NaN         NaN          NaN                    1.0            2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.35||module=none
35.714014          54.744674      1.113936          0.68        0.586065          1.843122            0.10
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2
35.797551          54.756863      1.108515          0.65        0.591134          1.820560            0.10
NaN         NaN          NaN                    1.0            1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=expand_regime_affine_v2_heterosk
35.797551          54.756863      1.108515          0.65        0.591134          1.820560            0.10
NaN         NaN          NaN                    1.0            2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||huber|epsilon=1.2||module=none
35.797551          54.756863      1.108515          0.65        0.591134          1.820560            0.10
NaN         NaN          NaN                    1.0           99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_affine_global
36.176588          61.031774      1.500000          0.70        0.398595          2.534937            1.00
NaN         NaN          NaN                    0.0            5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_affine_global
36.144474          60.931760      1.500000          0.70        0.401160          2.519432            1.00
```

# Model Benchmark Table Group 3 (Postprocessing, rows=75) (cont.)

```
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_affine_global
36.112412         60.830592      1.500000              0.70           0.403758         2.503955              1.00
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.12||module=expand_affine_global
35.635721         58.907612      1.387712              0.70           0.457971         2.220514              0.25
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.1||module=expand_affine_global
35.656818         58.992780      1.392218              0.70           0.455867         2.229891              0.25
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.0|l1_ratio=0.08||module=expand_affine_global
35.677940         59.077159      1.396731              0.70           0.453776         2.239330              0.25
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.12||module=expand_affine_global
35.397225         57.558260      1.314167              0.70           0.494875         2.068563              0.10
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.1||module=expand_affine_global
35.410288         57.625227      1.318123              0.70           0.493311         2.074151              0.10
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=0.7|l1_ratio=0.08||module=expand_affine_global
35.423440         57.691894      1.322094              0.70           0.491747         2.079807              0.10
NaN            NaN          NaN                      0.0              5
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2
36.112412         60.830592      1.500000              0.70           0.403758         2.503955              1.00
NaN            NaN          NaN                      1.0              1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=expand_regime_affine_v2_heterosk
36.112412         60.830592      1.500000              0.70           0.403758         2.503955              1.00
NaN            NaN          NaN                      1.0              2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.12||module=none
36.112412         60.830592      1.500000              0.70           0.403758         2.503955              1.00
NaN            NaN          NaN                      1.0              99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2
36.144474         60.931760      1.500000              0.70           0.401160         2.519432              1.00
NaN            NaN          NaN                      1.0              1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=expand_regime_affine_v2_heterosk
36.144474         60.931760      1.500000              0.70           0.401160         2.519432              1.00
NaN            NaN          NaN                      1.0              2
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.1||module=none
36.144474         60.931760      1.500000              0.70           0.401160         2.519432              1.00
NaN            NaN          NaN                      1.0              99
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2
36.176588         61.031774      1.500000              0.70           0.398595         2.534937              1.00
NaN            NaN          NaN                      1.0              1
massey_alpha=1.0|use_elo=1|elo_home_adv=60.0|elo_k=24.0|elo_decay_a=0.25|elo_decay_g=50.0||elasticnet|alpha=1.5|l1_ratio=0.08||module=expand_regime_affine_v2_heterosk
36.176588         61.031774      1.500000              0.70           0.398595         2.534937              1.00
NaN            NaN          NaN                      1.0              2
... (25 more rows)
```

# Results Summary

```
Global vs regime scaling comparison
- Candidate postprocessors included: none, expand_affine_global, expand_regime_affine_v2, expand_regime_affine_v2_heterosk, expand_piecewise_tail_v2.
- Locked module: expand_affine_global

Tail and dispersion diagnostics (outer OOF for selected config)
- Tail RMSE improvement vs base: 4.2193
- Extreme Tail RMSE improvement vs base: 4.7934
- Dispersion ratio base: 0.4901
- Dispersion ratio final: 0.6819
- Dispersion moved toward 1.0: True
- Tail dispersion ratio final: 0.4806

Selected dispersion expansion parameters
- r_base=0.49057701866105907, naive_r=2.0384159101649693
- s_star=1.0533373677158486, chosen_s=1.4268911371154784, eta=0.7
- tail_q=None, tail_t=None, tail_k=None

Derby prediction distribution summary
- n=75 (asserted)
- mean=-4.3735
- std=26.9047
- p05=-51.3123
- p50=-3.5257
- p95=40.8838

Selection lock details
- Rating-stage lambda_tail chosen: 0.1
- Rating-stage lambda_xtail chosen: 0.05
- Rating-stage lambda chosen: 0.1
- Rating-stage lambda_disp chosen: 0.05
- Rating-stage lambda_cap_hit chosen: 0.0
- Rating-stage lambda_tbias chosen: 0.0
- Rating-stage lambda_tdisp chosen: 0.05
- Model-stage lambda_tail chosen: 0.1
- Model-stage lambda_xtail chosen: 0.05
- Model-stage lambda chosen: 0.1
- Model-stage lambda_disp chosen: 0.05
- Model-stage lambda_cap_hit chosen: 0.0
- Model-stage lambda_tbias chosen: 0.0
- Model-stage lambda_tdisp chosen: 0.05
- Selection gate rejections count: 55
- Massey-only gate applied: False
- Massey-only gate reason:
```
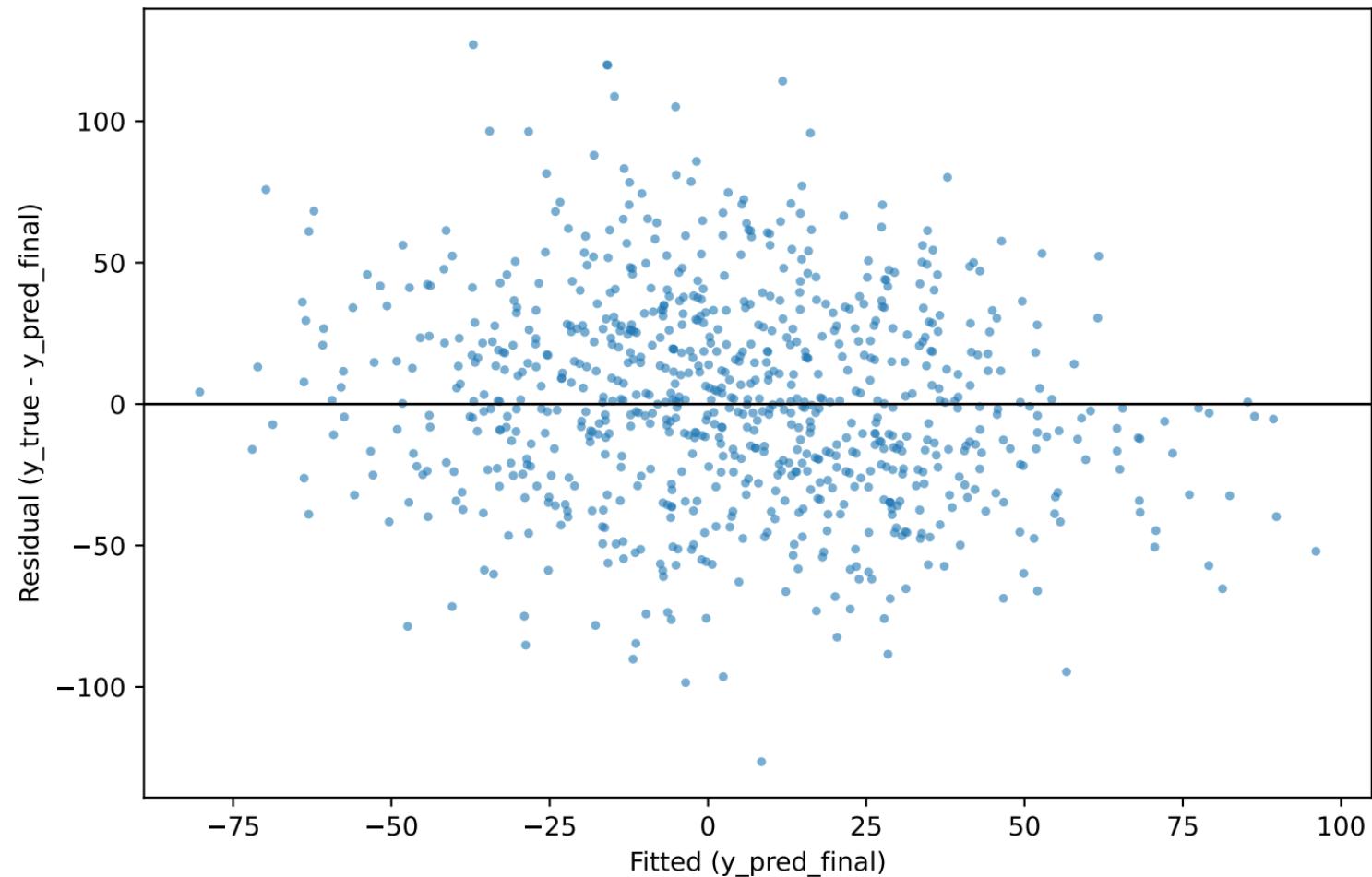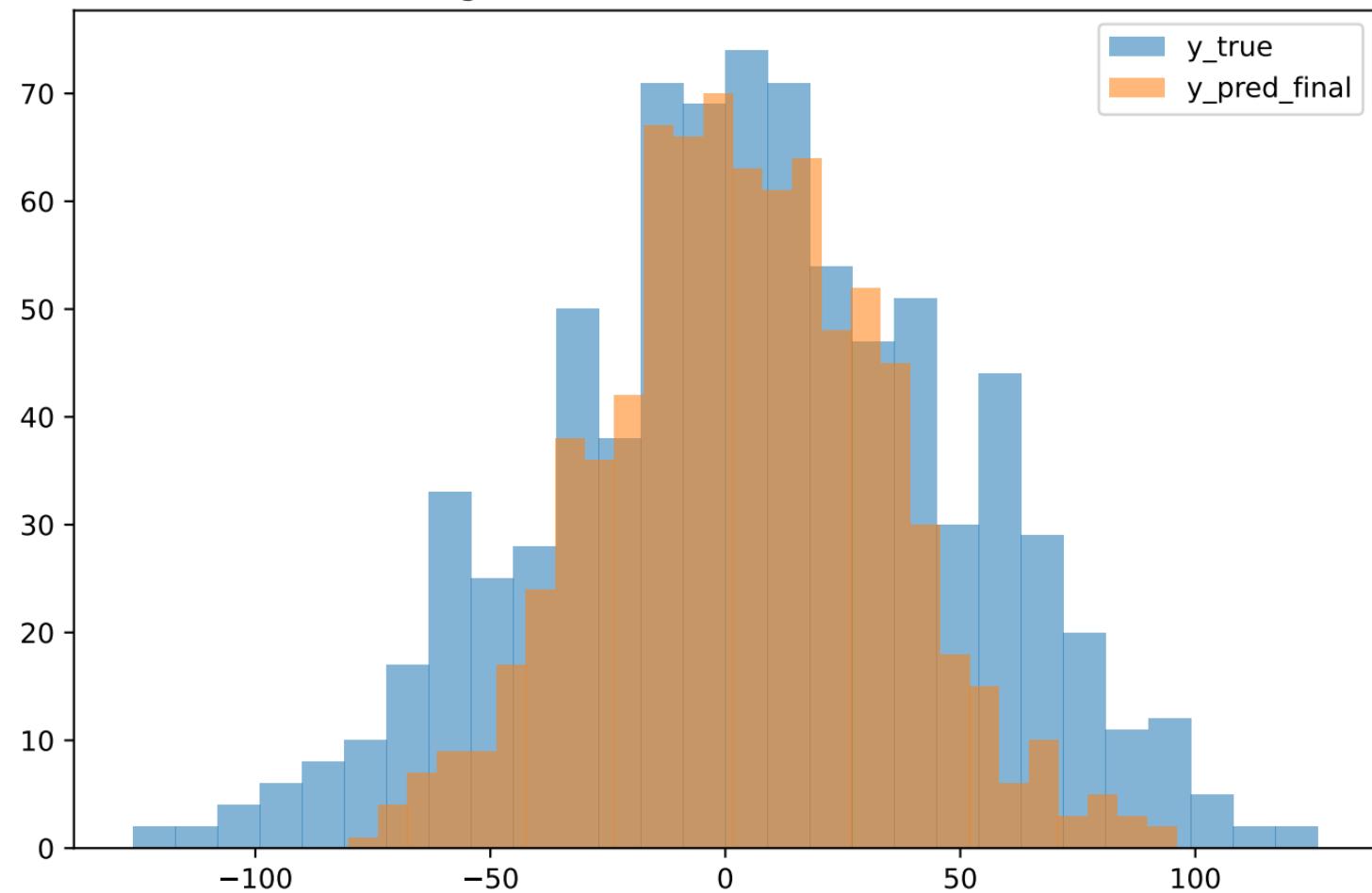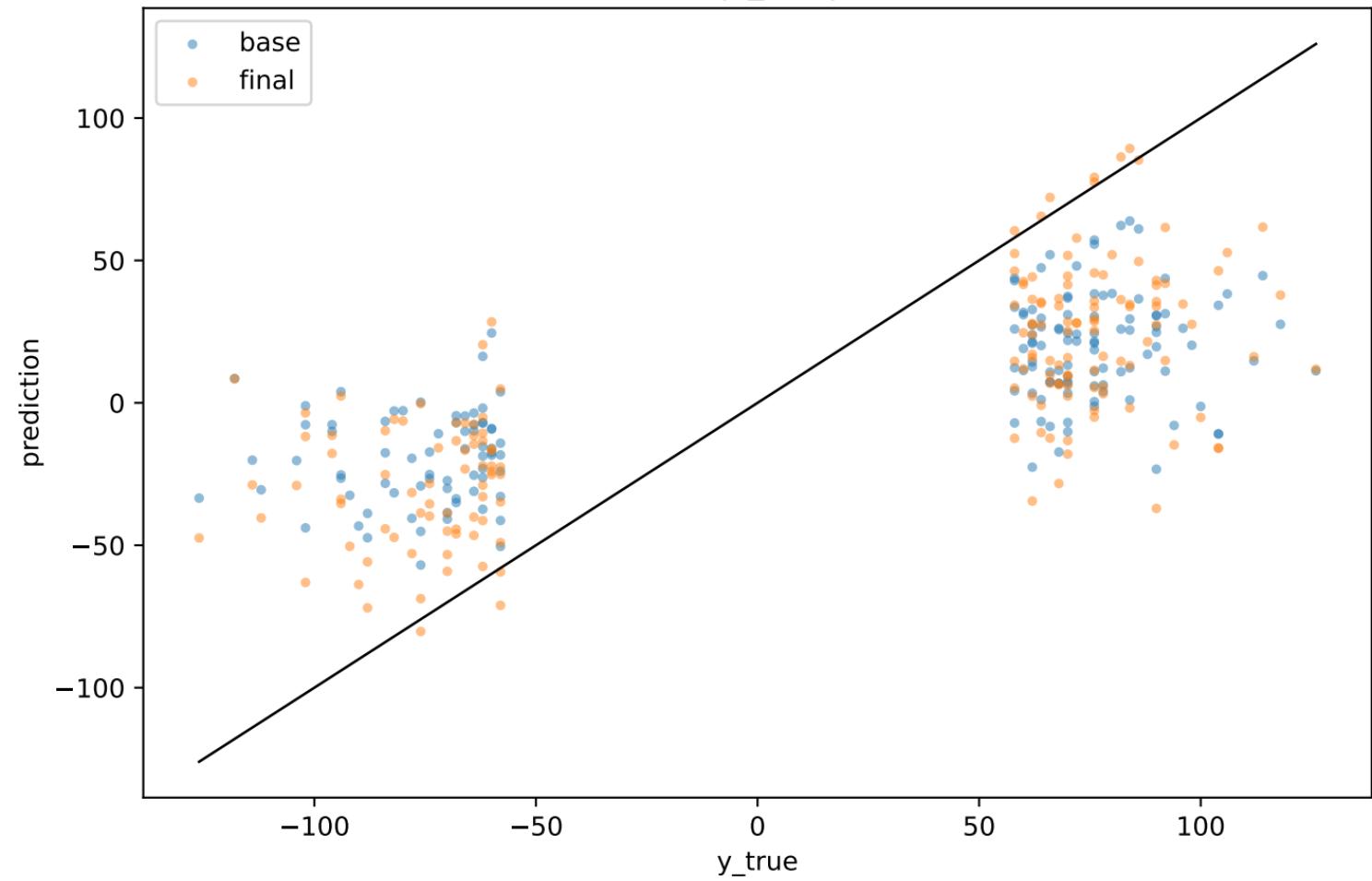
Residual vs Fitted (OOF Final)
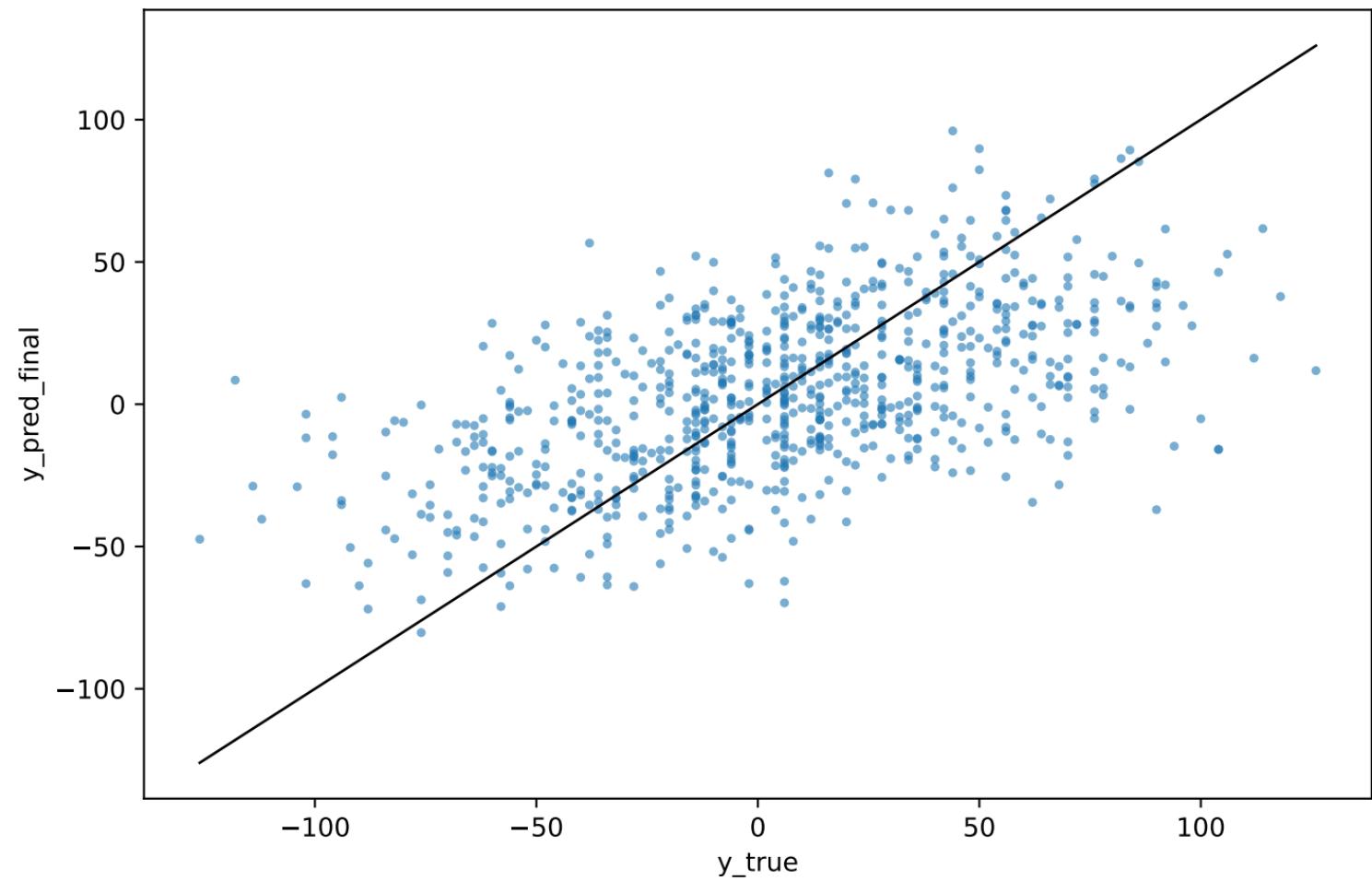
Histogram: OOF Actual vs Final Predictions

Tail Scatter (|y_true| top 20%)

Prediction vs Actual (OOF Final)

Dispersion Ratio by Fold (std(pred)/std(y))