Aero Duel Tournament 2025

This is an simple analysis for **Aerowalk_Duel_Tournament** data for Div1 playoff games. Dataset based on the output from mvd demos parser using the mvd to JSON **parser tool**

Dataset Summary Table	
Characteristic	**N = 166**[1]
X	42 (21, 63)
player	
andeh	13 (7.8%)
Bernkaoch	14 (8.4%)
bps	16 (9.6%)
eQu	5 (3.0%)
er	8 (4.8%)
HoLy	16 (9.6%)
kip FU	6 (3.6%)
LocKtar	12 (7.2%)
Locust	13 (7.8%)
macisum	4 (2.4%)
pkk	12 (7.2%)
speedball	15 (9.0%)
ThundeR	6 (3.6%)
Ti	3 (1.8%)
tom	6 (3.6%)
Zepp	17 (10%)
match_num	4 (2, 6)
ga	10 (7, 12)
ya	11 (9, 13)

ra	11 (9, 13)
mh	8 (6, 10)
lg	29.6 (26.9, 32.4)
rl_ad	74.3 (71.5, 77.2)
frags	17 (12, 26)
rank	-3 (-15, 12)
spawnfrags	2 (1, 3)
damage_gvn	6,497 (5,912, 7,328)
speed_avr	315 (305, 321)
version	
MVDSV 0.35	6 (3.6%)
MVDSV 1.10	8 (4.8%)
MVDSV 1.20-dev	142 (86%)
MVDSV 1.20-dev-antilag-r402	10 (6.0%)
ktxver	
1.42	6 (3.6%)
1.45	8 (4.8%)
1.46-dev	142 (86%)
1.46-dev-r402	10 (6.0%)
client	
ezQuake 1	56 (34%)
ezQuake 7783	10 (6.0%)
ezQuake 7799	6 (3.6%)
ezQuake 7904	10 (6.0%)
ezQuake 7947	32 (19%)
ezQuake 7960	9 (5.4%)

ezQuake 7964	2 (1.2%)
ezQuake 7965	3 (1.8%)
ezQuake 7974	6 (3.6%)
ezQuake 7982	3 (1.8%)
ezQuake 7997	1 (0.6%)
ezQuake 8122	13 (7.8%)
ezQuake 8156	12 (7.2%)
ezQuake 8236	3 (1.8%)
avg_ping	26 (13, 38)
avg_packetloss	0.00 (0.00, 0.02)
sv_antilag	
1	10 (6.0%)
2	156 (94%)
epoch	1,745,781,473 (1,743,972,361, 1,748,440,784)

[1] Median (Q1, Q3); n (%)

Some summaries for interesting parameters:

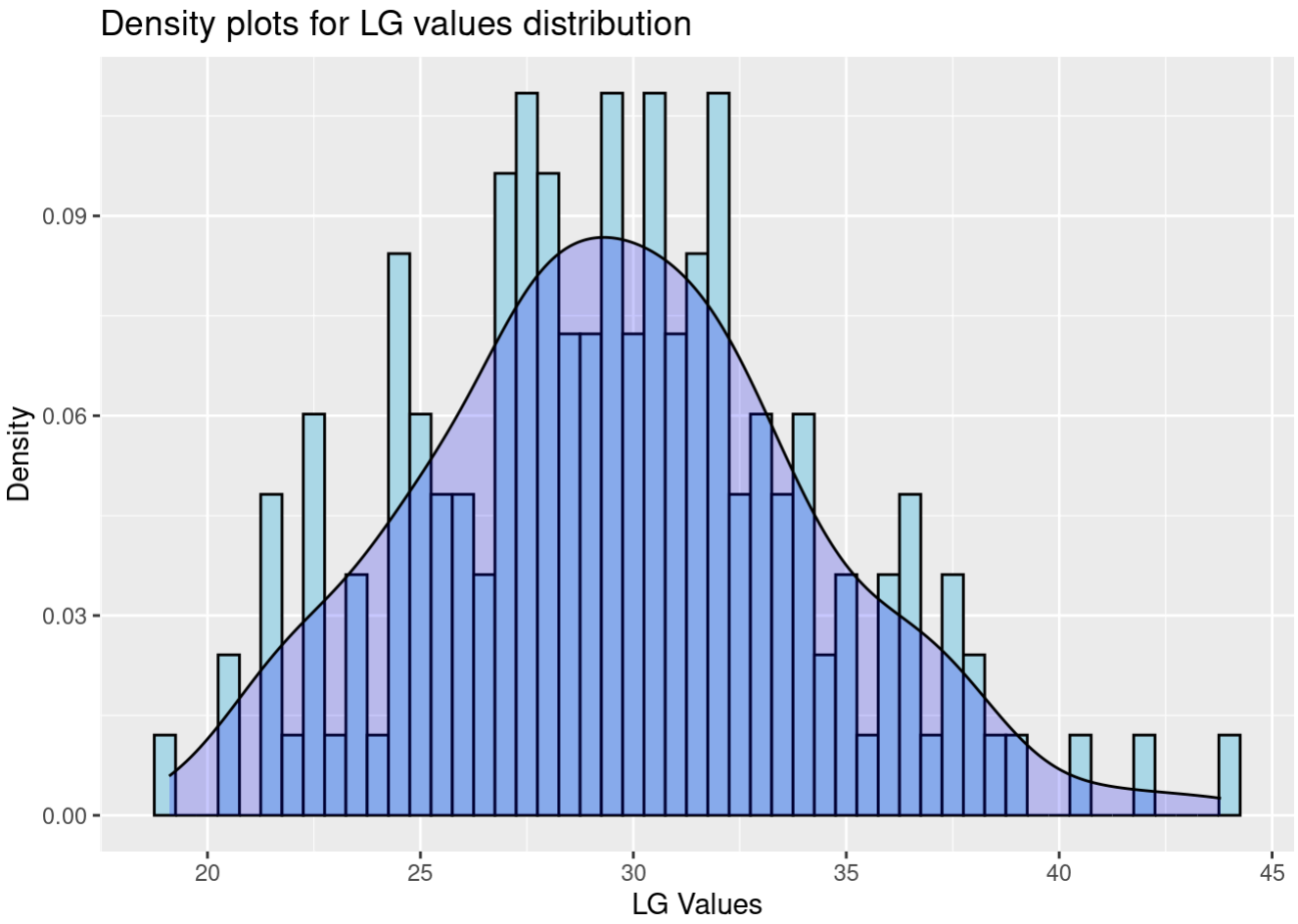
Armors and health summary

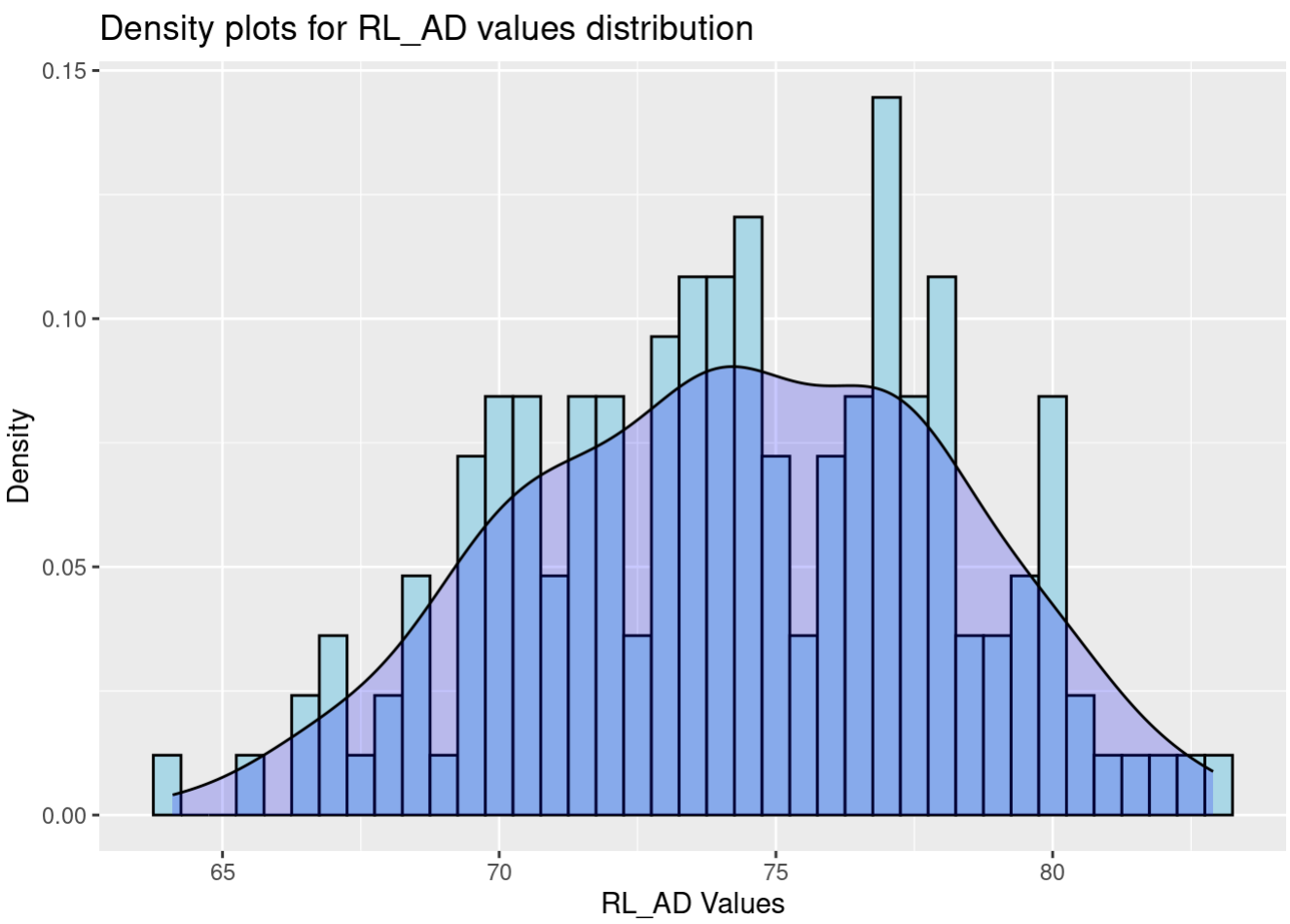
ra	ya	ga	mh
Min. : 4.00	Min. : 1.00	Min. : 1.000	Min. : 2.000
1st Qu.: 9.00	1st Qu.: 9.00	1st Qu.: 7.000	1st Qu.: 6.000
Median :11.00	Median :11.00	Median :10.000	Median : 8.000
Mean :11.37	Mean :11.11	Mean : 9.657	Mean : 8.235
3rd Qu.:13.00	3rd Qu.:13.00	3rd Qu.:12.000	3rd Qu.:10.000
Max. :23.00	Max. :21.00	Max. :19.000	Max. :14.000

LG and rl_ad summary

lg	rl_ad

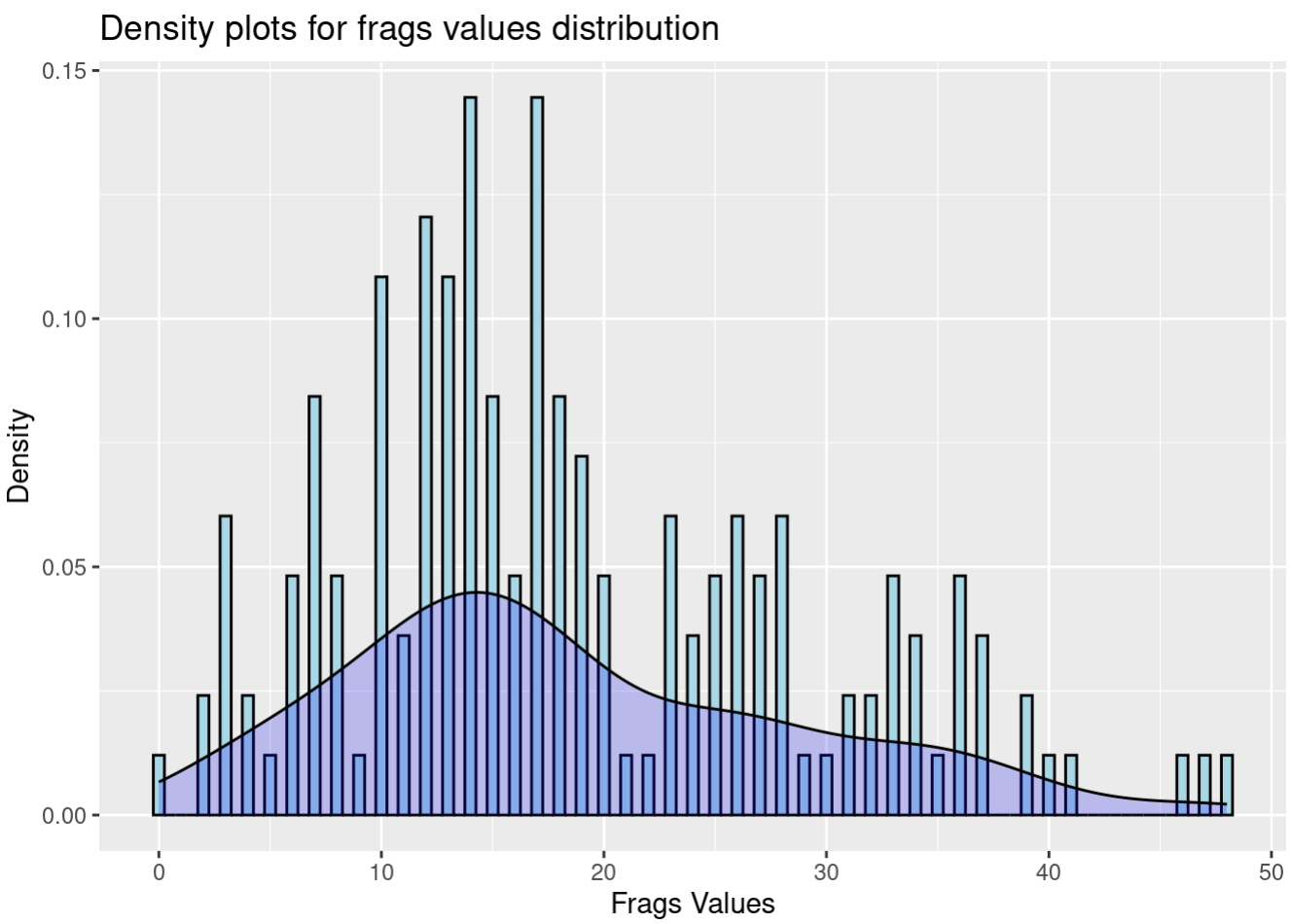
Min. :19.10	Min. :64.10
1st Qu.:26.90	1st Qu.:71.50
Median :29.55	Median :74.30
Mean :29.63	Mean :74.29
3rd Qu.:32.35	3rd Qu.:77.20
Max. :43.80	Max. :82.90

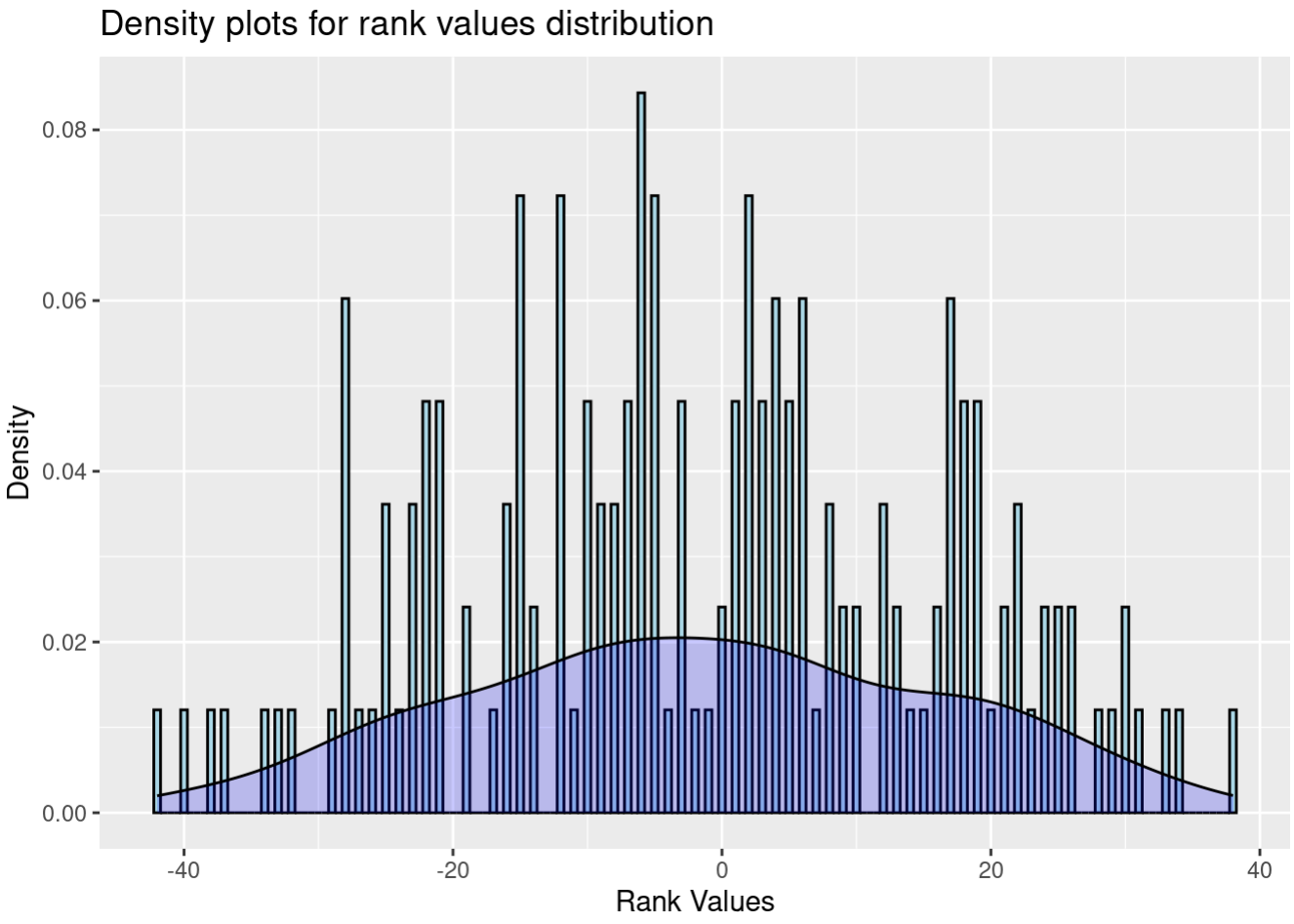




Game results summary

frags	rank	spawnfrags	damage_gvn	speed_avr	avg_ping
Min. : 0.00	Min. :-42.000	Min. : 0.000	Min. :3837	Min. :284.4	Min. :12.00
1st Qu.:12.00	1st Qu.:-14.750	1st Qu.: 1.000	1st Qu.:5916	1st Qu.:305.1	1st Qu.:12.91
Median :17.00	Median : -2.500	Median : 2.000	Median :6496	Median :314.6	Median :26.22
Mean :18.58	Mean : -1.536	Mean : 2.211	Mean :6606	Mean :313.3	Mean :29.38
3rd Qu.:25.75	3rd Qu.: 12.000	3rd Qu.: 3.000	3rd Qu.:7322	3rd Qu.:320.9	3rd Qu.:38.16
Max. :48.00	Max. : 38.000	Max. :10.000	Max. :9959	Max. :340.4	Max. :80.16





Statistics tables

Top players by weapon usage

Statistics for all matches

Top players by LG% in match

player	lg
Locust	43.8
Locust	41.9
bps	40.5
bps	39.0
Locust	38.5
Locust	37.8
Locust	37.8
LocKtar	37.7
Locust	37.4
Locust	37.4

Statistics for all matches

Top players by RL AD in match

player	rl_ad
kip FU	82.9
bps	82.5
ThundeR	82.1
Bernkaoch	81.5
ThundeR	80.8
ThundeR	80.7
bps	80.4
er	80.2
LocKtar	80.2
HoLy	80.1

Top players by average weapon usage

Statistics for all matches

Average LG% by players

player	lg
Locust	36.9
macisum	33.0
bps	32.8
andeh	32.4
LocKtar	31.5
Bernkaoch	31.1
Zepp	29.5
Ti	28.4
eQu	28.0

Statistics for all matches

Average RL AD by players

player	rl_ad
ThundeR	79.6
kip FU	77.9
eQu	75.6
pkk	75.4
Bernkaoch	75.3
er	75.1
HoLy	75.1
Ti	74.7
Zepp	74.3

er	27.9

bps	74.3

Top players by other stats

Statistics for all matches

Top players by frags in match

player	frags
HoLy	48.0
Bernkaoch	47.0
andeh	46.0
HoLy	41.0
bps	40.0
Bernkaoch	39.0
Zepp	39.0
andeh	37.0
er	37.0
Zepp	37.0

Statistics for all matches

Top players by rank in match

player	rank
HoLy	38.0
bps	34.0
HoLy	33.0
speedball	31.0
Bernkaoch	30.0
Zepp	30.0
er	29.0
andeh	28.0
andeh	26.0
Bernkaoch	26.0

Statistics for all matches

Top players by damage_gvn in match

player	damage_gvn
andeh	9,959.0
Bernkaoch	8,866.0
Zepp	8,828.0
andeh	8,782.0
Bernkaoch	8,767.0
andeh	8,713.0
Locust	8,600.0

Statistics for all matches

Top players by spawnfrags in match

player	spawnfrags
speedball	10.0
Locust	9.0
andeh	8.0
Bernkaoch	8.0
pkk	8.0
Bernkaoch	7.0
Bernkaoch	7.0

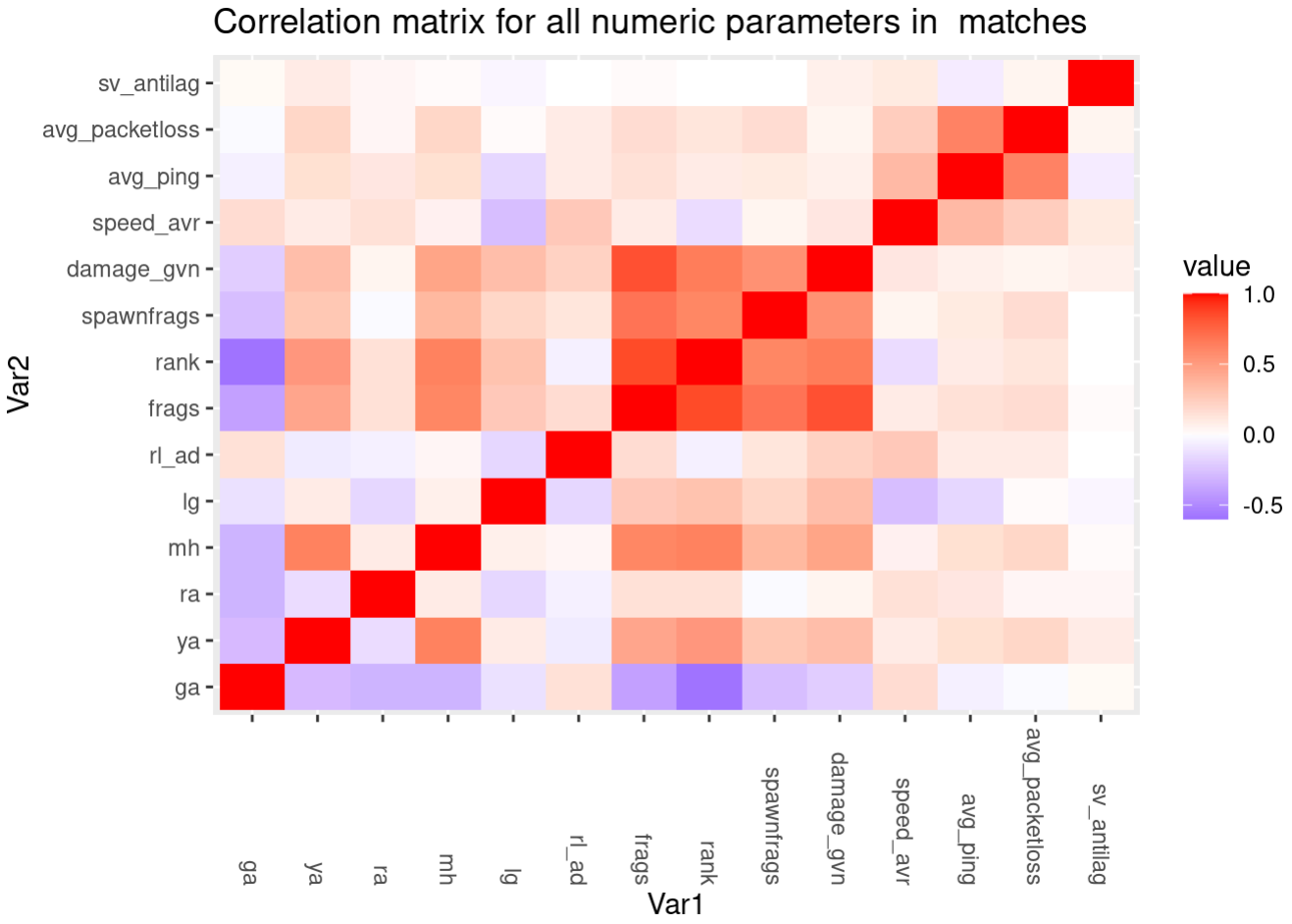
Statistics for all matches

Top players by speed_avr in match

player	speed_avr
ThundeR	340.4
pkk	334.2
Bernkaoch	333.5
pkk	332.8
Bernkaoch	332.1
Bernkaoch	331.6
Zepp	331.5

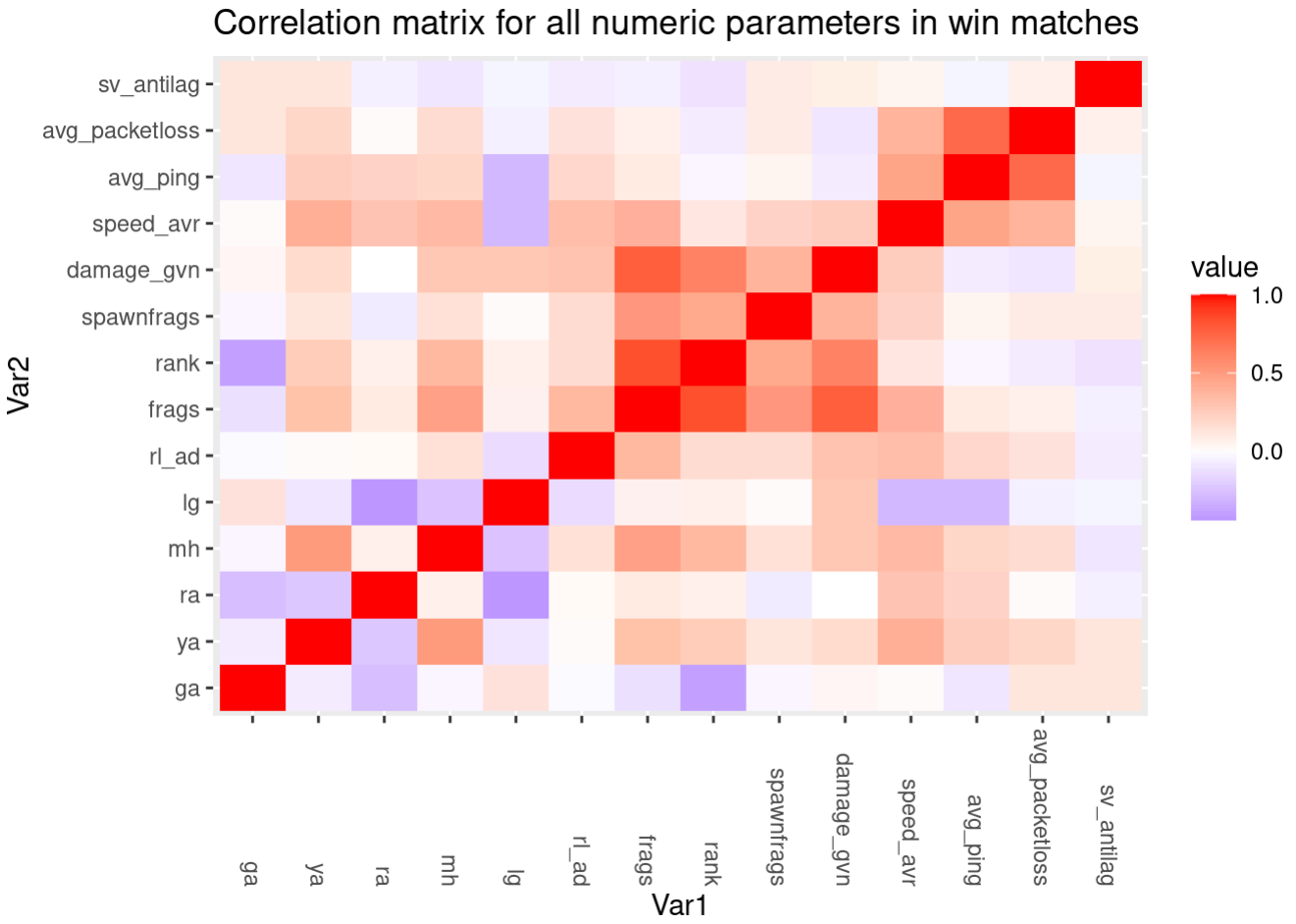
Bernkaoch	8,538.0	HoLy	6.0	Bernkaoch	330.9
HoLy	8,535.0	speedball	6.0	HoLy	330.2
HoLy	8,516.0	Zepp	6.0	pkk	330.2

Numeric parameters correlation analysis by *The Pearson correlation coefficient*



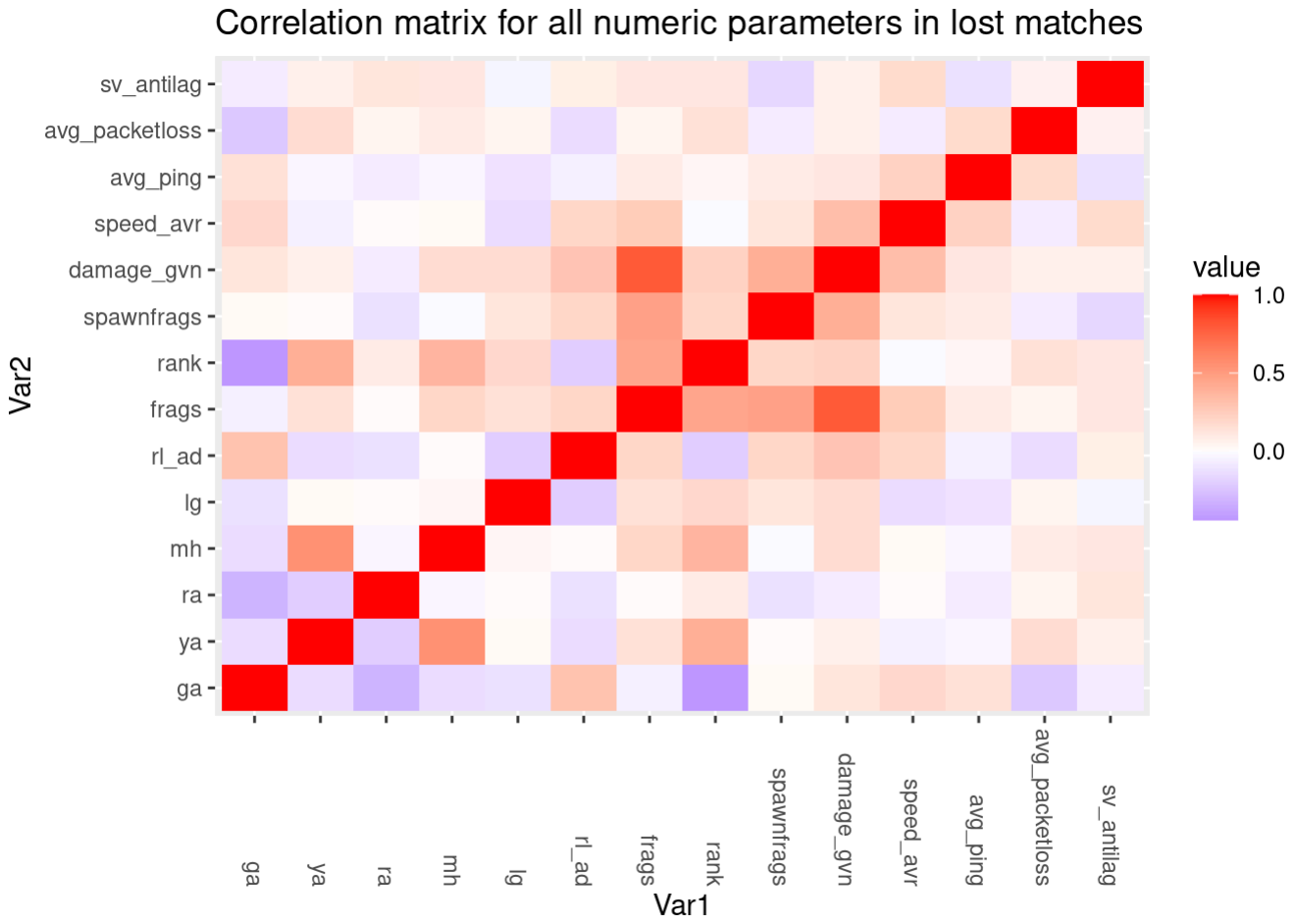
Key observations:

- Obvious ones with high correlations:
  - damage_gvn,spawnfrags,rank,frags
  - avg_packetlost,avg_ping AND (sic!) ***speed_avr***
  - anti-lag feature has no impact at all (but the number of games with 1 relatively small)
- Interesting ones:
  - rl_ad almost **has nothing** to do with frags and ranks
  - lg has correlations with frags(rank,damage_gvn)
  - mh correlated with ya and frags(rank,damage_gvn)
  - negative rank highly correlated with GA



Key observations:

- Obvious ones with high correlations same with all matches:
- Interesting ones:
  - LG has negative correlation with RA almost **has nothing** to do with frags and ranks
  - RA has negative correlations with GA,YA
  - average ping and average speed has negative correlations with LG ya and frags(rank,damage_gvn)
  - negative rank highly correlated with GA



Key observations:

- Obvious ones with high correlations same with all matches:
- Interesting ones:
  - RL AD correlated with GA
  - YA, MH correlated with rank

Simple Analysis – QuakeWorld Aerowalk 1-on-1 Outcomes by AI KIMI K2

0. TL;DR

> **Whoever controls the** red armor (RA)** and **mega health (MH)** wins.**
> Ping, LG accuracy and raw speed are **far less predictive** than the **stack advantage** you create by denying the big items on the map.

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1. The Two Magic Numbers

Metric	Winner (Avg)	Loser (Avg)	Δ
Red Armor Taken	**13.2**	**9.5**	**+3.7**
Mega Health Taken	**9.8**	**5.9**	**+3.9**

- **The bigger the RA+MH gap, the bigger the frag difference**
  Pearson **r ≈ 0.71** between *(RA+MH)* and *(frag difference)*.

2. What Did **Not** Matter Much

Variable	Winner vs Loser	Correlation with Frag Diff
LG accuracy %	30.7 % vs 29.4 %	r ≈ 0.09 (weak)
Average speed	312 ups vs 312 ups	r ≈ 0.03
Average ping	32 ms vs 32 ms	r ≈ 0.02
RL skill (avg dmg)	75.4 vs 74.2	r ≈ 0.05

Even when one player had 10–15 ms higher ping, the **stack differential still dominated** the scoreboard.

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3. Spawn Frag Luck vs Item Control

- Spawn frags (first frag of the round) **do not snowball**.
  - Winners averaged **2.8 spawn frags**; losers **1.5**.
  - However, a spawn-frag lead **only translated to 1.3 extra frags on average** — far less than the **6+ frag swings** seen when RA/MH were lopsided.

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4. The “Stack-First, Aim-Second” Rule of Thumb

RA + MH ≥ 20	RA + MH ≤ 12
W-L record: 47-3	**W-L record: 3-47**

When a player secured **≥20 big items** (RA+MH) in the 10-minute game, they **won 94 % of the time**, regardless of LG % or raw movement speed.

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5. Mini Heat-Map (sample size = 83 games)

RA Taken	MH Taken	Avg Frag Diff
15	12	**+21**
12	8	**+9**
9	5	**-2**
7	3	**-18**

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6. Practical Take-away for Players

1. **Prioritise RA & MH timers above all else.**
2. **Use LG/RL to secure the items, not to chase frags.**
3. **Ping < 60 ms and LG > 25 % is “good enough”**; beyond that, **stack control is king**.

> “Stack up, then open up.”

Analysis of QuakeWorld Aerowalk Match Data by DeepSeek R1 AI

Based on the provided datasets, here's a concise analysis of key correlations between gameplay factors and match outcomes:

1. **Resource Control Dominance**
   Winners consistently collected **more armor and mega health**:
   - Avg mega health taken: **9.8** (winners) vs **7.0** (losers)
   - Avg red armor taken: **12.1** vs **10.7**
   - Avg yellow armor taken: **12.9** vs **9.8**
     Implication: Map control and item timing are critical to victory.
2. **Damage Efficiency**
   Winners dealt **significantly more damage** with better efficiency:
   - Avg damage given: **7,203** (winners) vs **5,623** (losers)
   - Rocket Launcher skill damage: **75.2** vs **73.6**
     Observation: Sustained high damage output outweighs accuracy metrics.
3. **Movement Advantage**
   Winners maintained **slightly higher average speed**:
   - Avg movement speed: **312.7** vs **309.4**
     Note: Speed difference is modest but consistent across matches.
4. **Performance Disparity**
   Key outcome indicators:
   - Avg frag difference: **+15.2** (winners) vs **-19.3** (losers)
   - Spawn frags: **3.1** vs **1.1**
     Correlation: Early-round advantages (spawn frags) strongly predict wins.
5. **Network Factors**
   - Winners had **lower average ping** (28.9 ms vs 31.2 ms)
   - Packet loss showed **no consistent pattern** across outcomes
     Insight: Network stability matters, but skill factors dominate.

Winner vs Loser Comparison Table

Metric	Winners	Losers	Difference
Mega Health Taken	9.8	7.0	+40%
Red Armor Taken	12.1	10.7	+13%
Damage Given	7,203	5,623	+28%
Rocket Launcher Dmg	75.2	73.6	+2.2%
Avg Movement Speed	312.7	309.4	+1.1%
Spawn Frags	3.1	1.1	+182%

Key Conclusions

- **Resource Control** is the strongest predictor: Winners secured 40% more mega health and 13-15% more armor.
- **Damage Output > Accuracy**: Rocket Launcher damage efficiency showed stronger correlation with wins than Lightning Gun accuracy.
- **Early Momentum Matters**: Spawn frags (kills immediately after respawn) were nearly 3x higher for winners.
- **Network Advantage**: While winners had slightly better ping (28.9ms vs 31.2ms), the difference was less significant than skill-based factors.

Strategic Recommendations

1. Prioritize mega health spawns (timed every 30 seconds)
2. Trade weapon accuracy for sustained area damage
3. Apply spawn pressure tactics after kills
4. Optimize routes for armor stack maintenance

Note: Server versions (MVDSV) and client mods showed no measurable impact on outcomes when ping was comparable.