

Table 1: Methods

Algorithms	
A1	Stochastic Gradient Descent
A2	Gradient Descent with Probabilistic Assumptions
A3	Alternating Least Squares
Regularizations	
R1	Penalty of Magnitudes
R2	Bias and Intercepts
R3	Temporal Dynamics
Post-processing	
P2	KNN
P3	kernel ridge regression

Table 2: Pairings

Pairings	Algorithm	Regularization	Postprocessing
1	A1	R1+R2	P2
2	A1	R1+R2	P3
3	A1	R1+R3	P2
4	A1	R1+R3	P3
5	A1		P3
6	A2		P2
7	A2		P3
8	A3	R1	P2
9	A3	R1	P3
10	A3	R1+R2	P3
11	A3	R1+R3	P2
12	A3	R1+R3	P3
13	A3		P2
14	A3		P3

Table 3: Group Assignment

Group	Pairing Combination	Goal
Group 1	1 + 3	(R1+R2) vs (R1+R3) given (A1+P2)
Group 2	11 + 13	effect of (R1+R3) given (A3+P2)
Group 3	10 + 14	effect of (R1+R2) given (A3+P3)
Group 4	12 + 14	effect of (R1+R3) given (A3+P3)
Group 5	1 + 6	(A1+R1+R2) vs A2 given P2
Group 6	5 + 7	A1 vs A2 given P3
Group 7	6 + 13	A2 vs A3 given P2
Group 8	7 + 14	A2 vs A3 given P3
Group 9	8 + 9	P2 vs P3 given (A3+R1)
Group 10	6 + 7	P2 vs P3 given A2
Group 11	1 + 2	P2 vs P3 given (A1+R1+R2)
Group 12	3 + 4	P2 vs P3 given (A1+R1+R3)