

Edge Stability Scores Across Algorithms  
(Top 30 Edges by Average Stability)

Causal Edge (Source → Target)

pressure_mean → pressure_mean	98	100	99	33	0	0	99	33	99	33
rotate_mean → rotate_mean	100	100	98	28	0	0	98	28	98	28
vibration_mean → vibration_mean	44	100	98	41	0	0	98	41	98	42
maint_comp2 → failure_comp2	0	88	8	92	0	48	0	88	0	89
maint_comp1 → failure_comp1	0	82	10	86	0	50	0	82	0	82
pressure_mean → pressure_max	78	8	68	100	100	54	100	8	100	9
rotate_std → rotate_max	0	65	21	100	100	53	47	64	47	65
pressure_max → pressure_mean	76	100	22	100	0	46	6	100	6	100
vibration_std → vibration_min	0	58	28	100	100	47	55	57	55	54
volt_min → volt_std	0	45	66	100	0	56	69	45	69	42
rotate_mean → rotate_min	92	3	57	100	100	54	100	4	100	4
volt_mean → volt_mean	48	100	92	22	0	0	92	22	92	22
pressure_std → pressure_max	0	46	27	100	100	51	59	50	59	51
vibration_std → vibration_max	0	63	28	100	100	47	41	59	41	62
rotate_min → rotate_std	0	44	58	100	0	46	75	41	75	41
volt_std → volt_max	0	59	19	100	100	50	48	59	48	53
rotate_min → rotate_mean	43	100	35	100	0	46	5	100	5	100
pressure_min → pressure_std	0	49	47	100	0	49	65	48	65	47
volt_min → volt_mean	3	99	50	100	0	56	12	98	12	98
pressure_std → pressure_min	0	55	26	100	100	51	39	56	39	57
volt_max → volt_mean	20	100	42	100	0	48	6	100	6	100
pressure_std → pressure_mean	0	67	24	98	100	49	26	66	26	65
rotate_max → rotate_mean	13	100	38	100	0	50	8	100	8	100
volt_max → volt_std	0	43	59	100	0	50	57	42	57	48
vibration_max → vibration_std	0	37	58	100	0	53	63	41	63	38
pressure_min → pressure_mean	6	99	36	100	0	53	8	99	8	100
vibration_max → vibration_mean	25	100	24	100	0	46	5	100	5	100
vibration_min → vibration_std	0	45	54	100	0	53	51	44	51	47
pressure_max → pressure_std	0	57	45	100	0	49	42	54	42	55
vibration_min → vibration_mean	1	99	31	100	0	51	8	99	8	100

GCMVL

VarLiNGAM

PCMC1+

PCGCE

Dynotears

TiMINo

NBCB-w

NBCB-e

CBNB-w

CBNB-e

Algorithm

Stability Score (%)

100

80

60

40

20

0