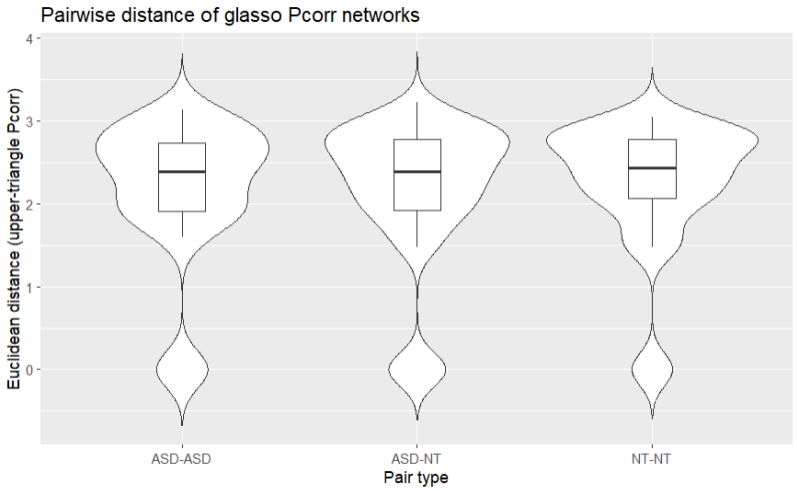

Figure 1. Glasso partial-correlation networks: pairwise Euclidean distance by pair type

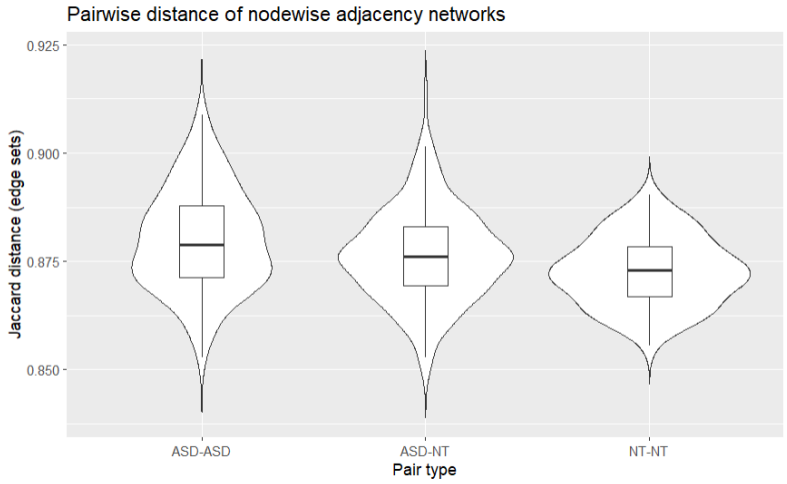

Figure 2. Nodewise-lasso adjacency networks: pairwise Jaccard distance by pair type

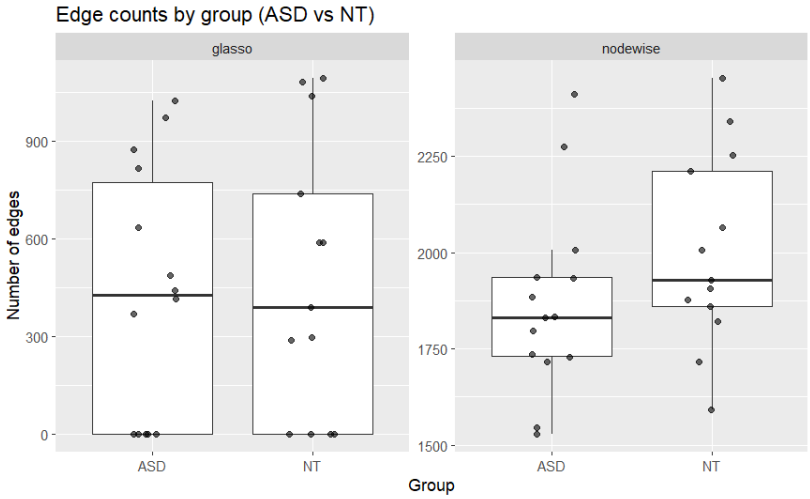

Figure 3. Edge counts by group (ASD vs NT) for glasso and nodewise methods

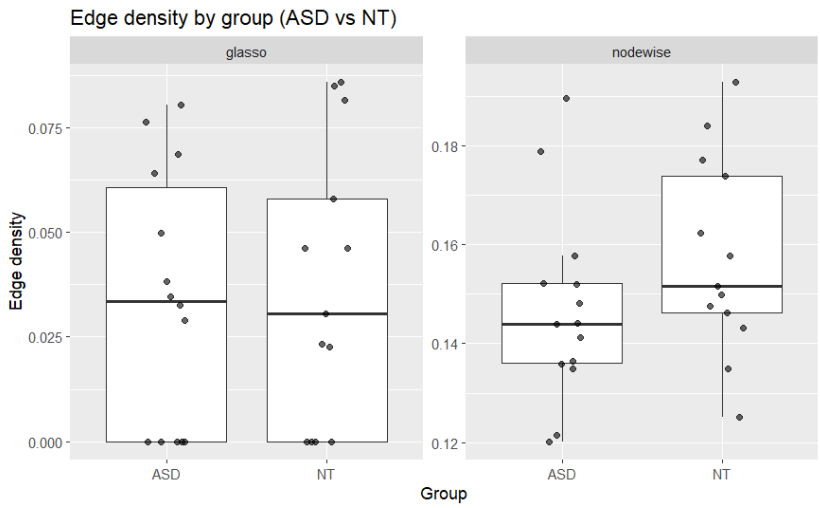

Figure 4. Edge density by group (ASD vs NT) for glasso and nodewise methods

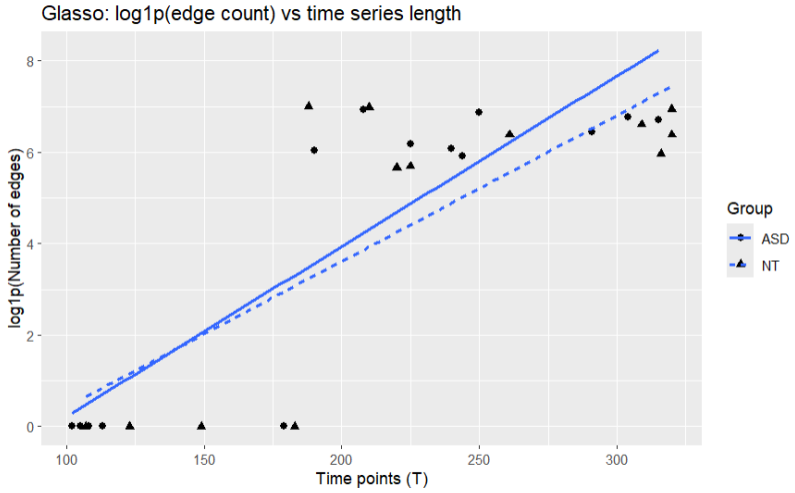

Figure 5. Glasso: log1p(edge count) versus time-series length (T)

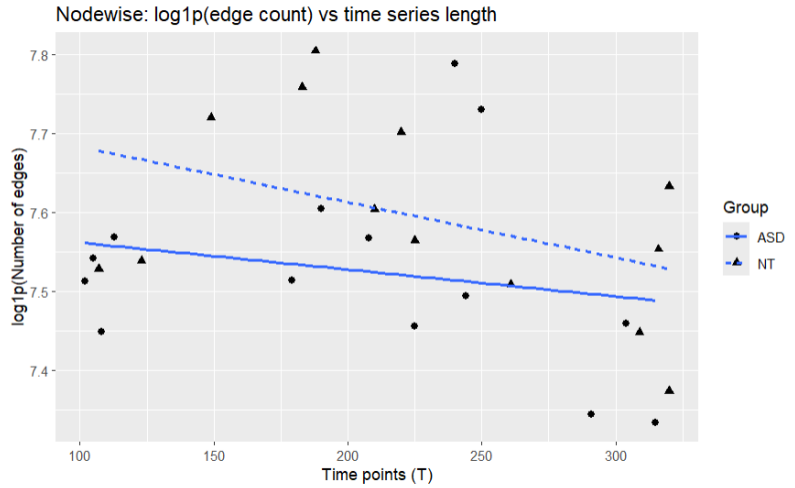

Figure 6. Nodewise: log1p(edge count) versus time-series length (T)

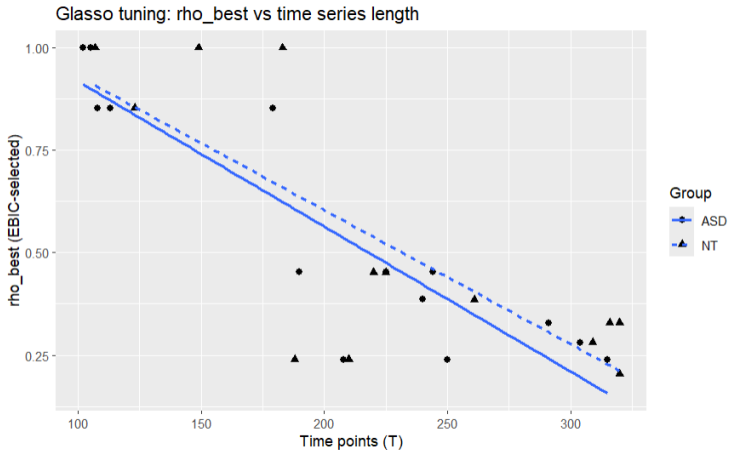

Figure 7. Glasso tuning: EBIC-selected ρ_{best} versus time-series length (T)

dx_group	n	t_min	t_median	t_max
ASD	14	102	216.5	315
NT	13	107	220.0	320

Table 1. Sample size and time-series length (T) by diagnostic group (ASD vs NT).

Method	dx_group	n	rho_median	edges_median	edges_min	edges_max
glasso	ASD	14	0.4520	427	0	1022
glasso	NT	13	0.3857	387	0	1091
nodewise	ASD	14	NA	1831.5	1529	2412
nodewise	NT	13	NA	1928.0	1592	2452

Table 2. Subject-level graph estimation summaries by method and group (glasso vs nodewise lasso).

Method	**Pair type**	**n_pairs**	**dist_mean**	**dist_median**	**dist_sd**
glasso (Euclidean on Pcorr upper triangle)	ASD-ASD	91	2.158	2.387	0.870
glasso (Euclidean on Pcorr upper triangle)	ASD-NT	182	2.161	2.392	0.873
glasso (Euclidean on Pcorr upper triangle)	NT-NT	78	2.238	2.429	0.781
nodewise (Jaccard on adjacency edge sets)	ASD-ASD	91	0.880	0.879	0.012

nodewise (Jaccard on adjacency edge sets)	ASD-NT	182	0.876	0.876	0.011
nodewise (Jaccard on adjacency edge sets)	NT-NT	78	0.873	0.873	0.008

Table 3a. Pairwise network distance summaries

Method	between_mean	within_mean (pooled)	Δ = between − within	p_value
glasso	2.161	2.195	-0.033	0.485
nodewise	0.876	0.877	-0.000	0.795

Table 3b. Permutation test results (two-sided)

x	y	rho	p_value	n
t_points	edges_glasso	0.683	<0.001	27
t_points	dens_glasso	0.683	<0.001	27
t_points	rho_best	-0.756	<0.001	27
t_points	edges_nodewise	-0.257	0.196	27
t_points	dens_nodewise	-0.257	0.196	27
age_at_scan	edges_glasso	-0.059	0.772	27
age_at_scan	edges_nodewise	-0.181	0.366	27

Table 4a. Associations between network summaries and potential confounders (Spearman)

method	adjust	n	W	p_value	formula
glasso	t_points	27	115	0.254	log1p(edges_glasso) ~ t_points
nodewise	t_points	27	56	0.094	log1p(edges_nodewise) ~ t_points
glasso	t_points + age + sex	27	114	0.275	log1p(edges_glasso) ~ t_points + age_at_scan + sex
nodewise	t_points + age + sex	27	51	0.055	log1p(edges_nodewise) ~ t_points + age_at_scan + sex

Table 4b. Residual-based Wilcoxon tests for ASD–NT group effect after covariate adjustment