

D Supplementary Tables and Figures

Range	BIC max	BIC min	len	addtv comps	non- stat.	num age	num year	num coh	rough age	rough year	rough coh
JPN Female \mathcal{K}_r : Rerun											
1-10	-2723.53	-2725.27	4.00	1.00	0%	1.00	1.50	1.50	0%	100%	100%
1-50	-2720.11	-2725.27	4.48	1.02	10%	1.12	1.82	1.54	0%	100%	100%
51-100	-2717.87	-2720.11	5.16	1.24	14%	1.28	2.30	1.58	0%	100%	100%
JPN Female trained on \mathcal{D}_{rob} and search in \mathcal{K}_r											
1-10	-2716.89	-2725.27	4.10	1.00	0%	1.00	1.70	1.40	0%	100%	100%
1-50	-2713.77	-2725.27	4.64	1.20	2%	1.20	1.88	1.56	0%	100%	100%
51-100	-2712.33	-2714.64	5.00	1.40	6%	1.22	1.88	1.90	0%	100%	100%

Table 14: Additional GA runs on JPN Female HMD data

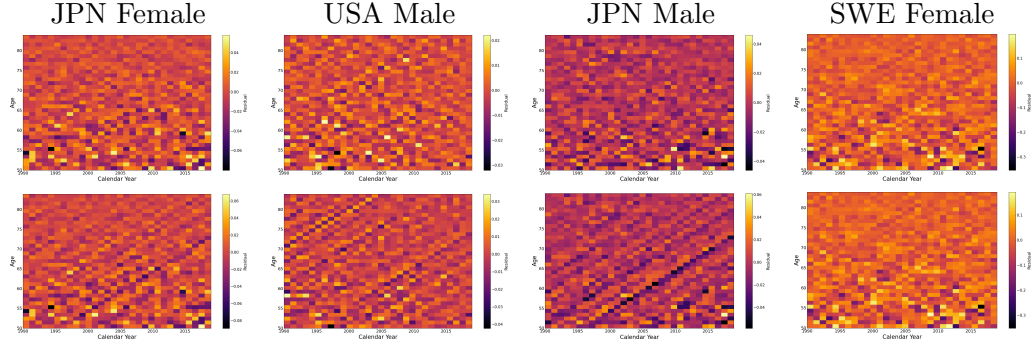


Figure 8: Residual plots for the top kernel in \mathcal{K}_f (top row) and the best kernel without a Cohort term (bottom row). The bottom row kernels are: JPN Female $(0.0144 \cdot [0.0133 \cdot Meh_a(0.10) \cdot AR2_y(49.3, 8.84) + 30.5479 \cdot M32_y(70.5)] \cdot M52_a(38.1) \cdot M12_y(1811))$; JPN Male: $0.082 \cdot M52_a(30.9) \cdot M52_y(26.1) \cdot [0.0114 \cdot AR2_y(154.0, 9.52) \cdot RBF_a(4.42) + 1.0985 \cdot M12_y(568.4)]$; USA Male: $0.0194 \cdot Chy_a(26.5) \cdot M12_a(771.5) \cdot Chy_y(15.9) \cdot [1.7718 \cdot M12_y(727.6) + 0.0111 \cdot M32_a(2.38) \cdot RBF_y(2.61)]$ and SWE Female: $0.1125 \cdot Chy_a(28.9) \cdot Meh_y(1.16) \cdot M12_y(1094)$.