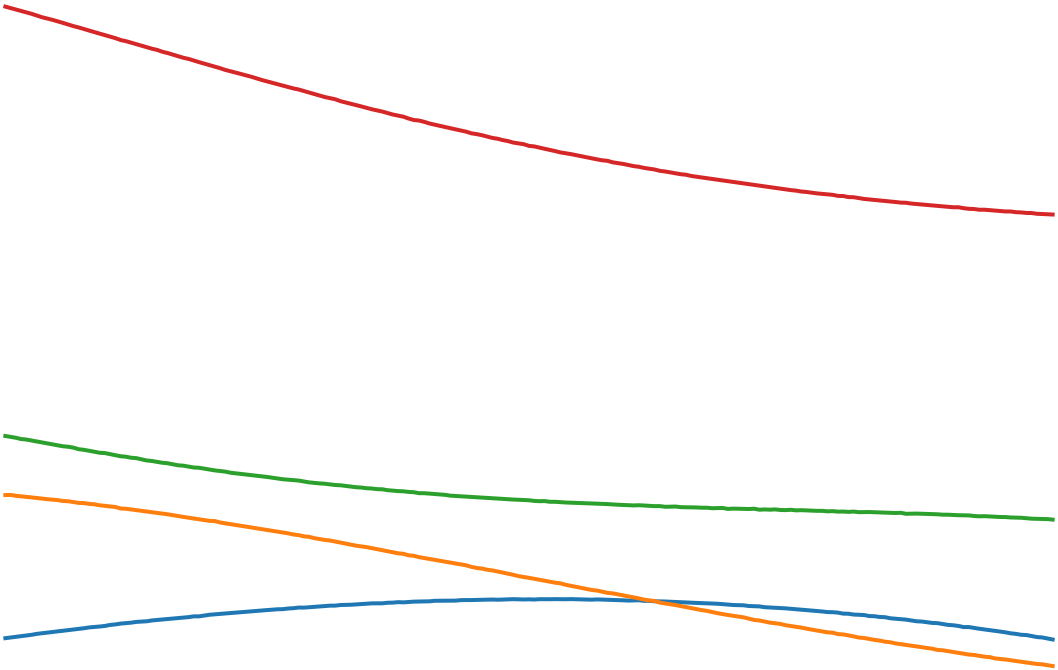longse_kernel