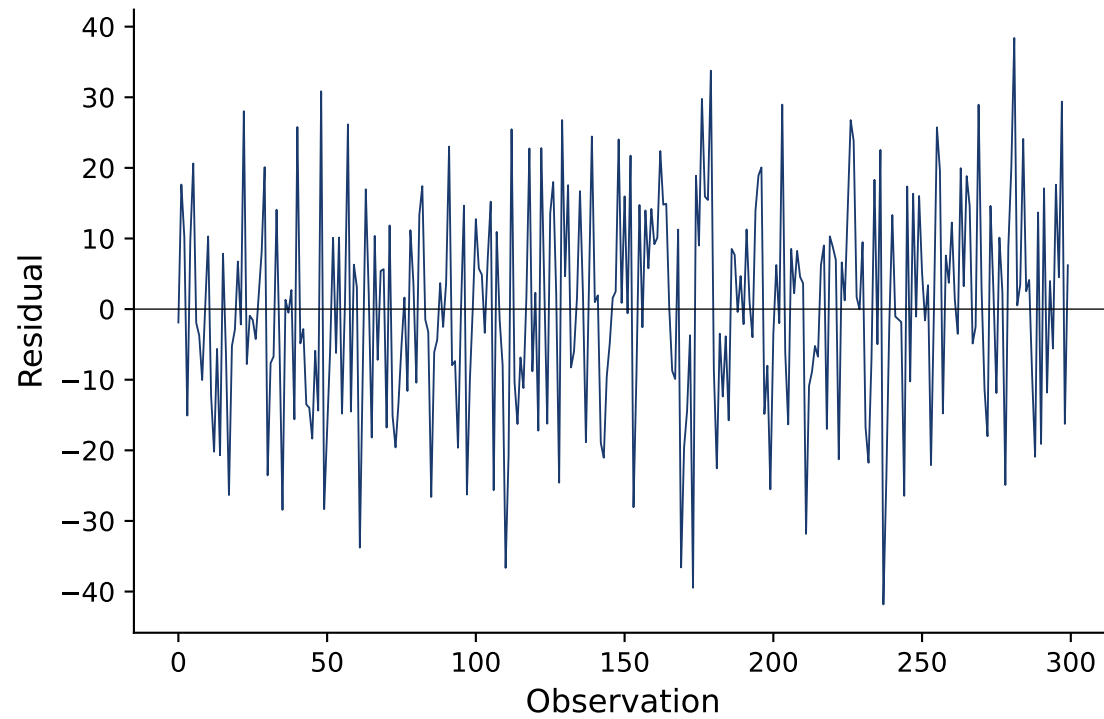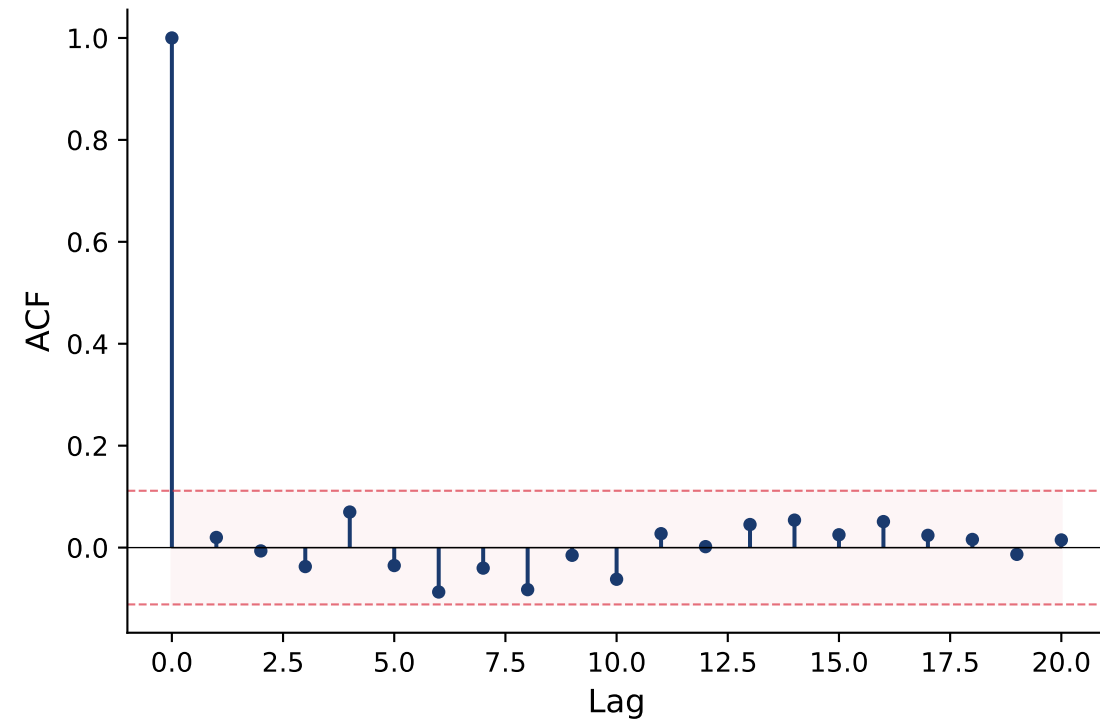AR(9) Diagnostics for sunspot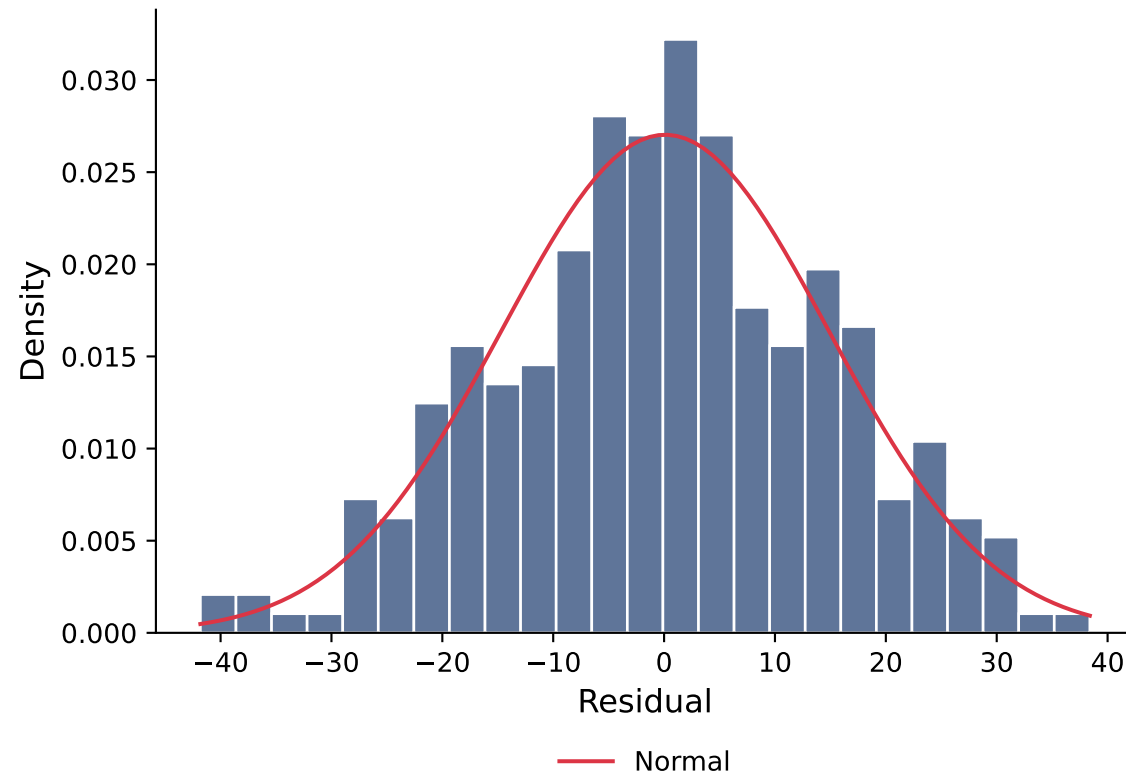s