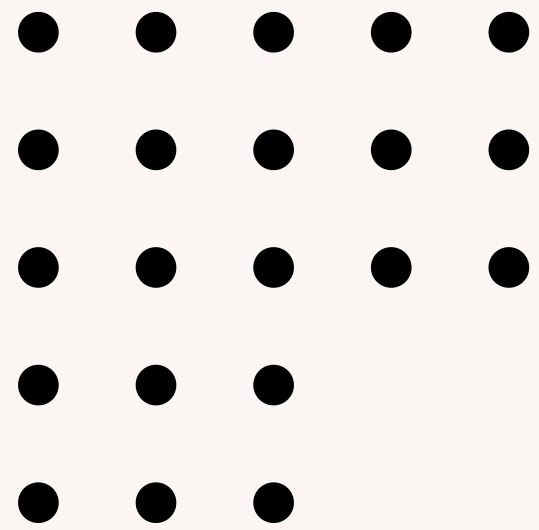


ANÁLISE: SÉRIES TEMPORAIS DOS DADOS DO INMET

Pedro Tosto
Gabriel Cardoso
Karina Azevedo
Anderson



TÓPICOS DE ABORDAGEM

- Banco de dados
- Tratamento de Dados
- EDA
- Comparação de Métodos
- Análises Residuais



INMET:
INSTITUTO
NACIONAL DE
METEOROLOGIA
(2024).



INMET

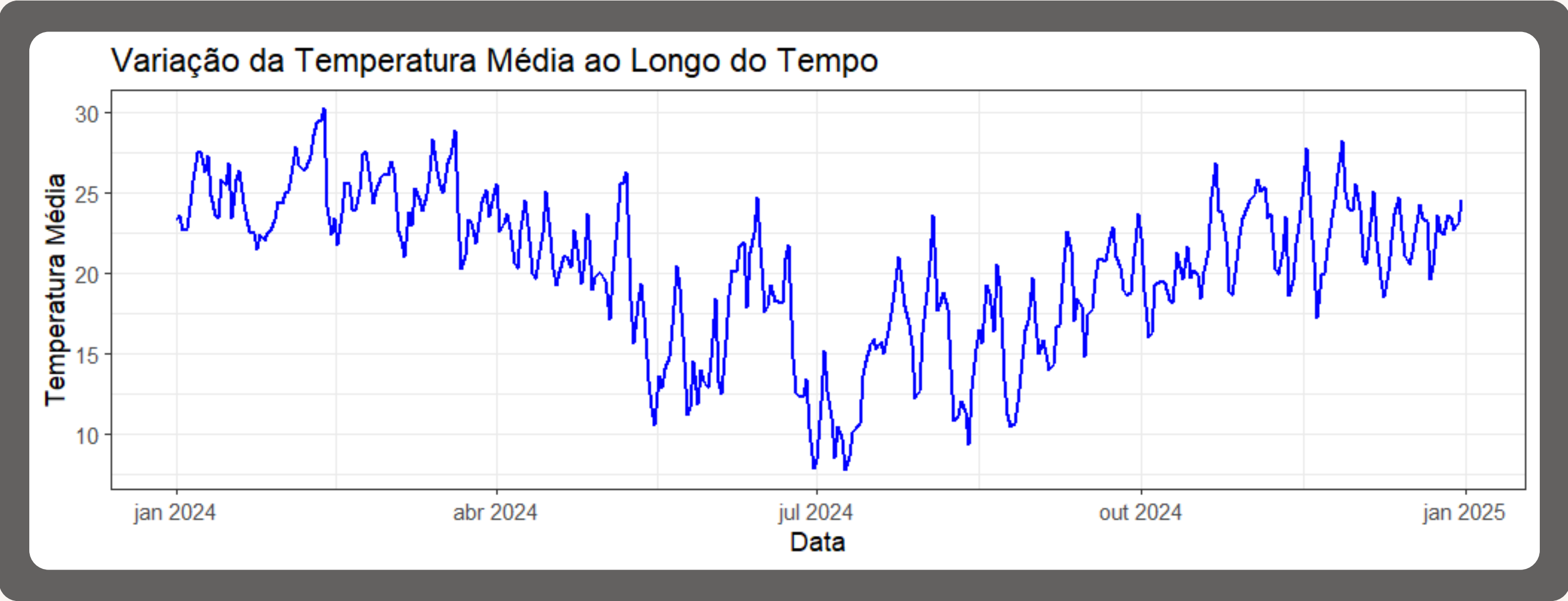


Gráfico de sazonalidade

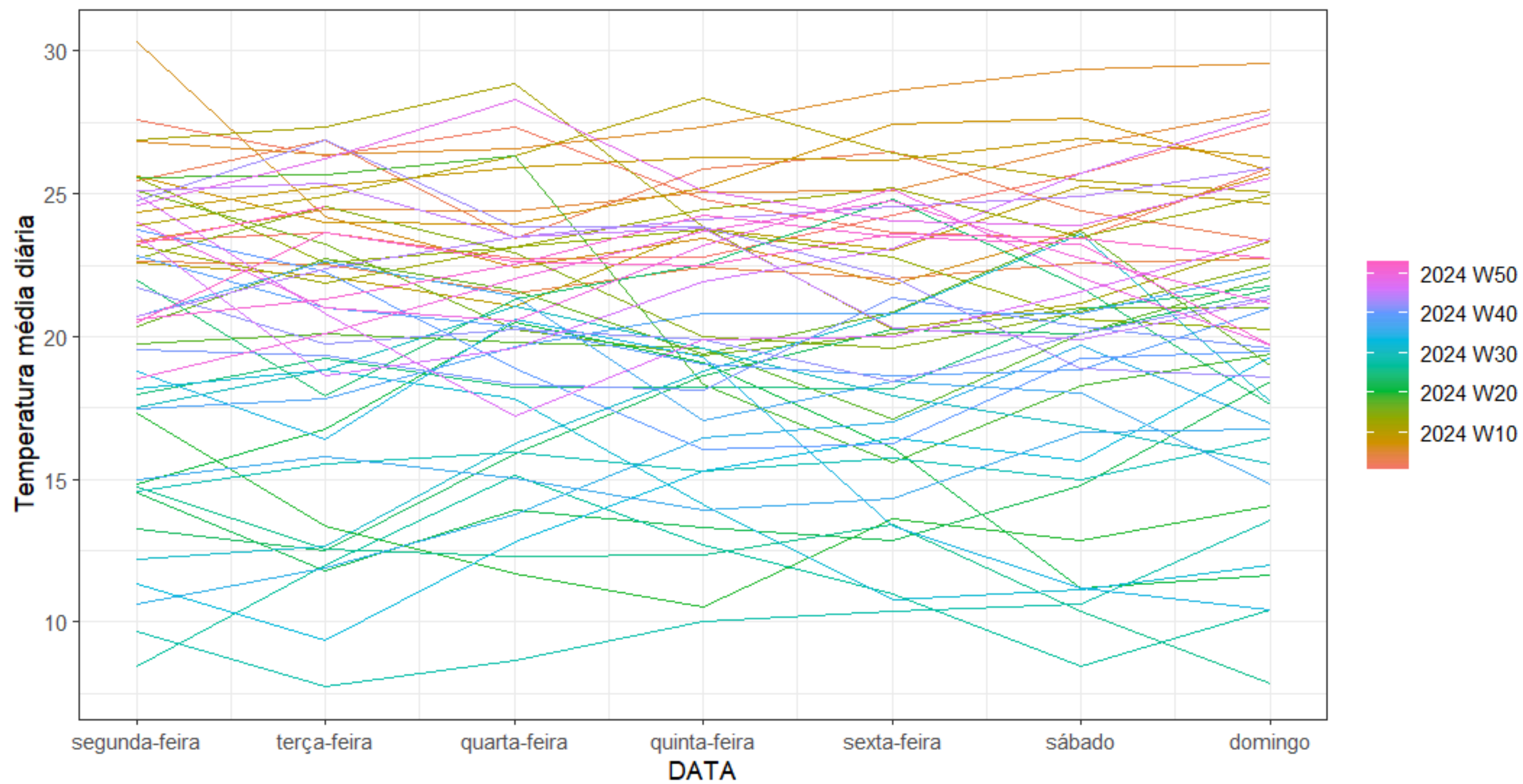
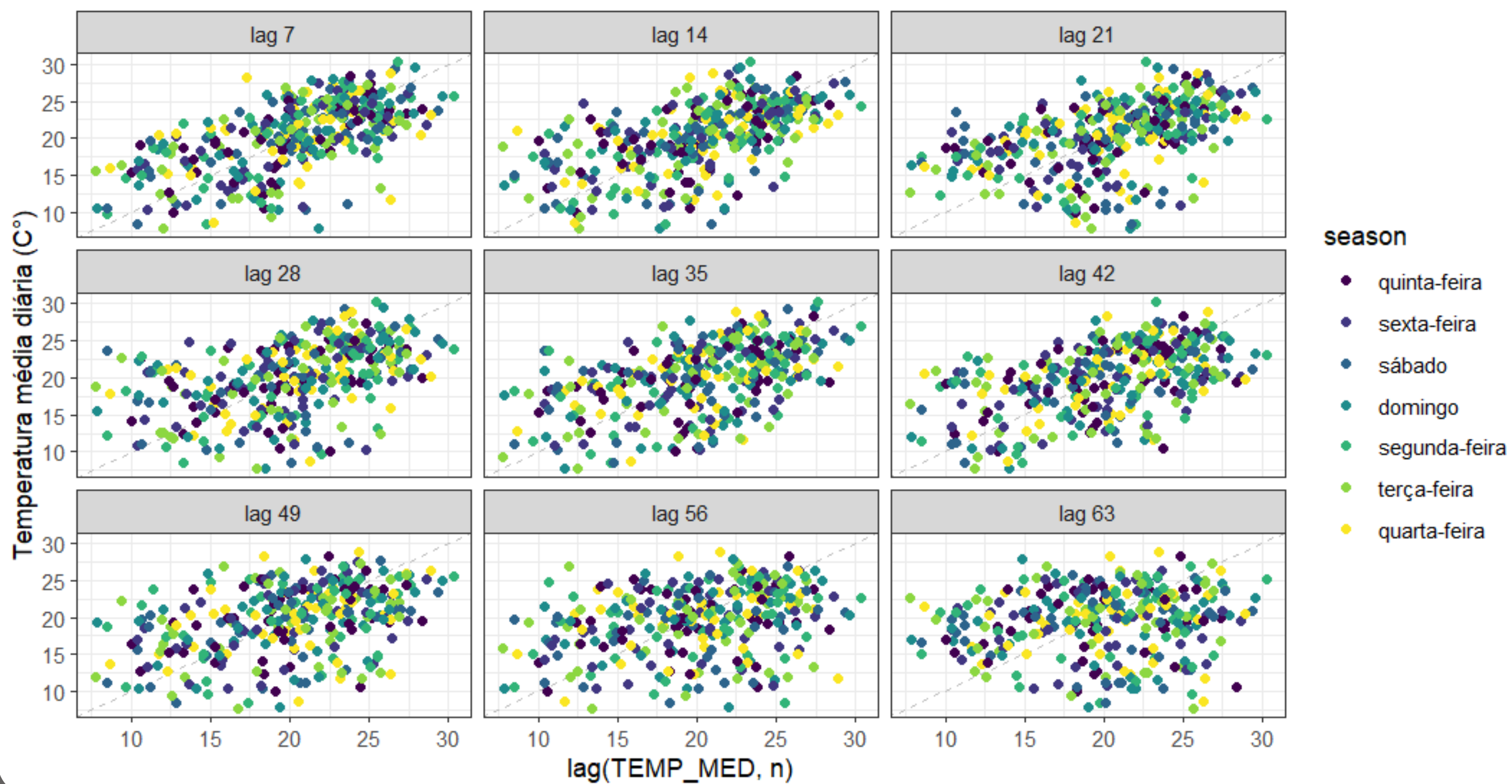
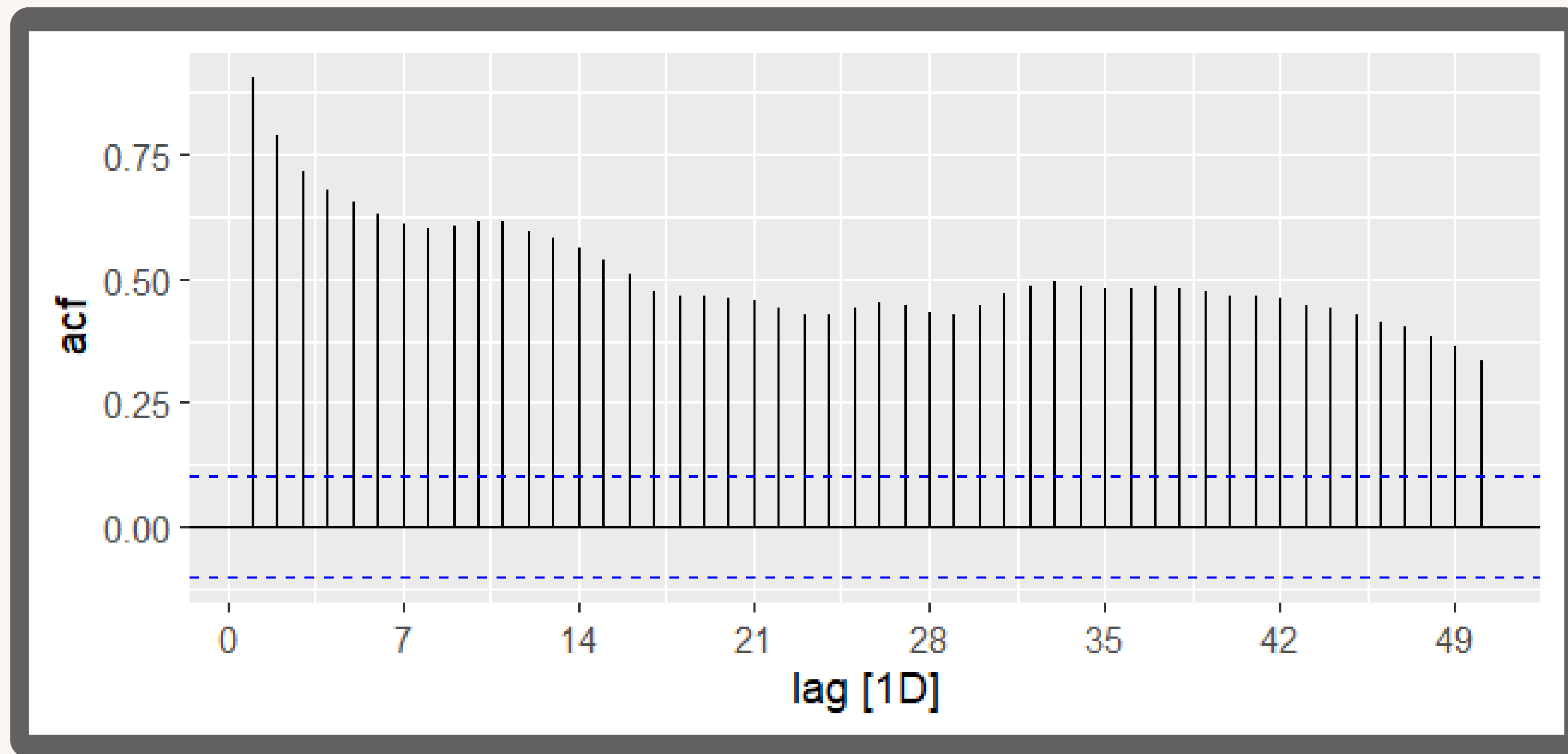


Gráfico de defasagem

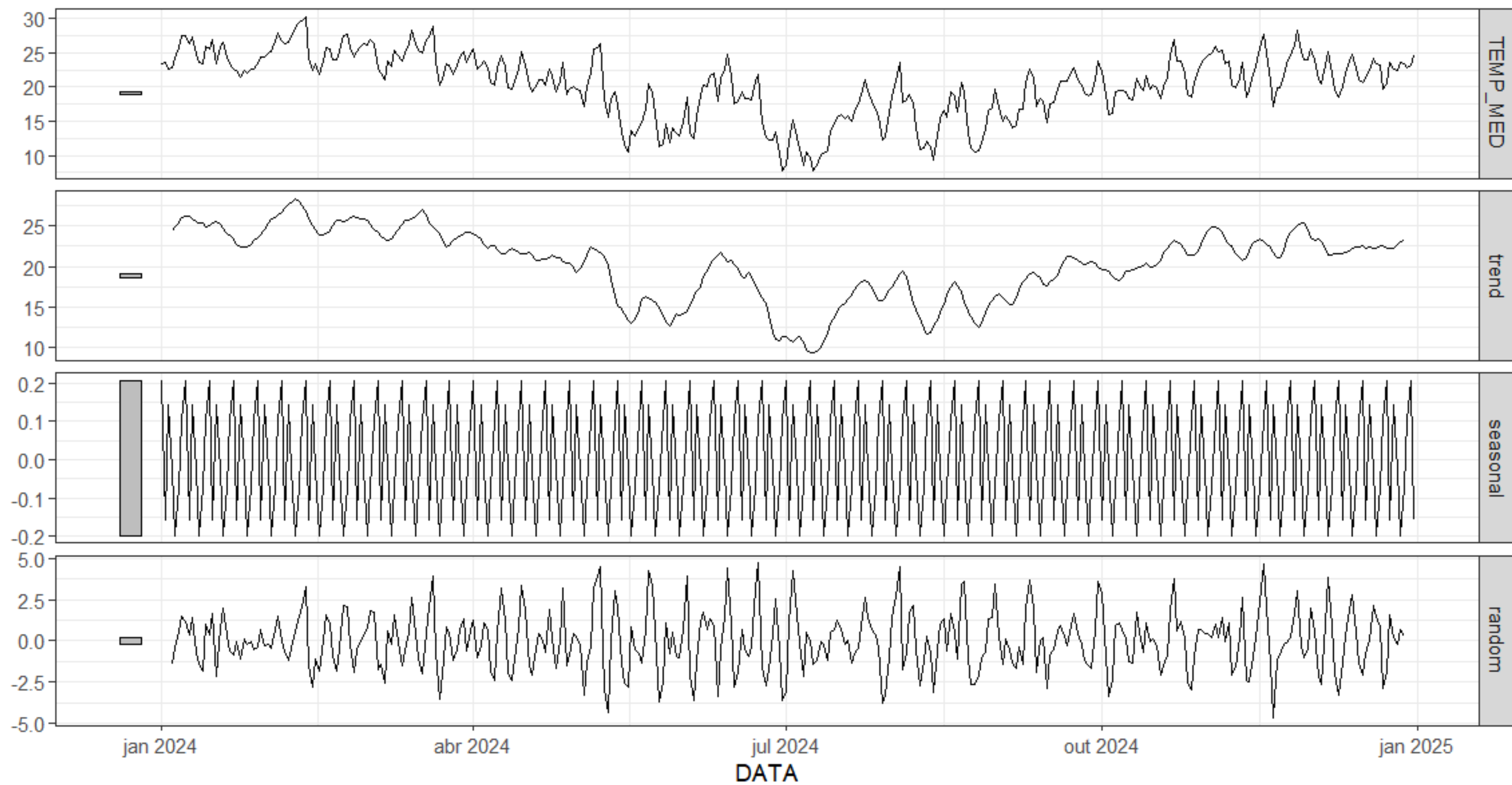


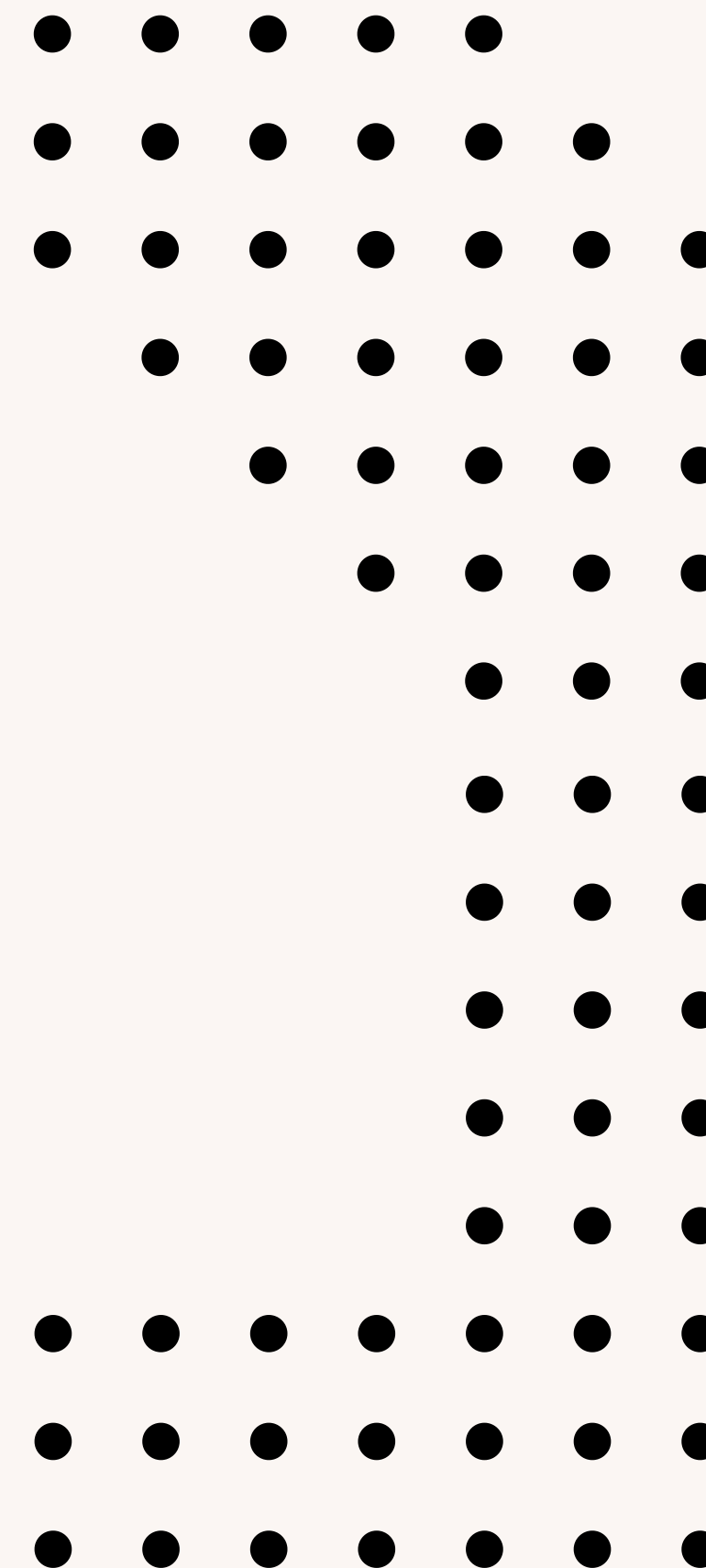
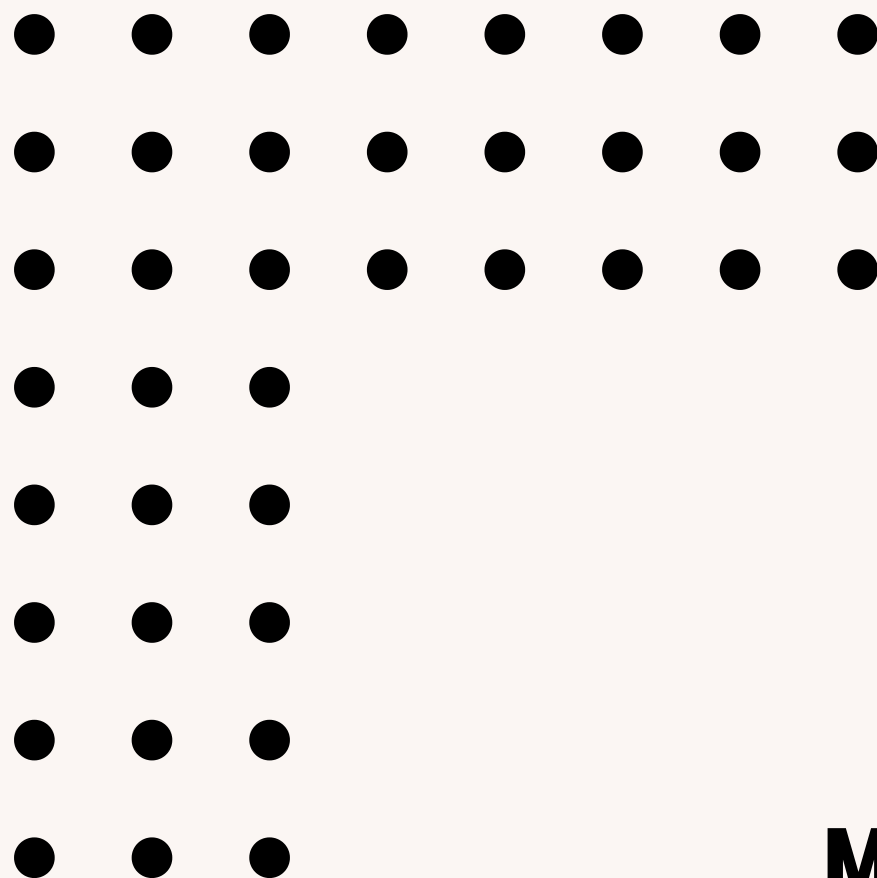
Função de Autocorrelação (ACF)



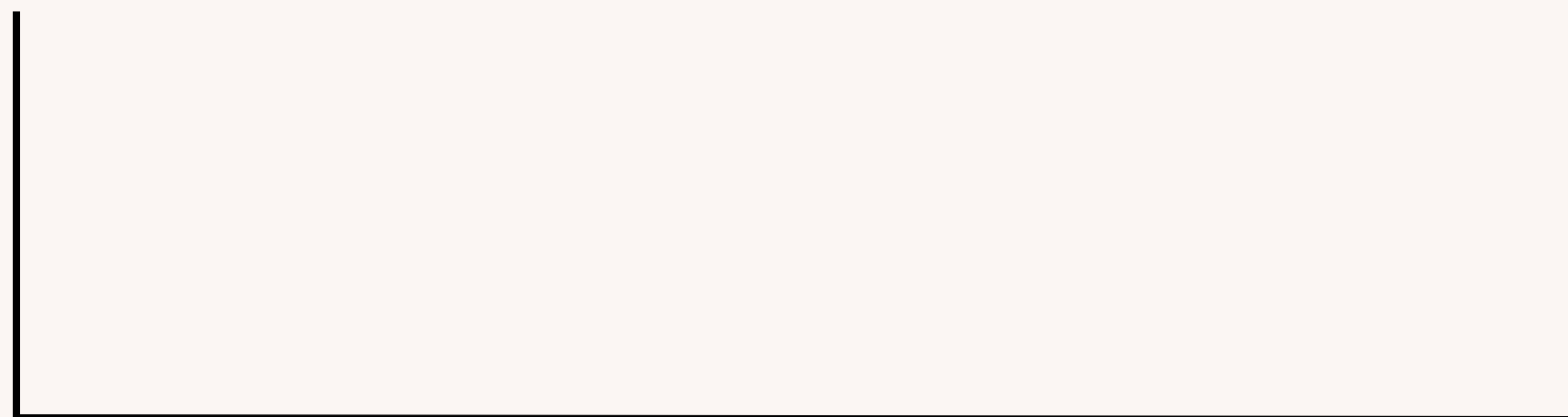
Classical decomposition

$\text{TEMP_MED} = \text{trend} + \text{seasonal} + \text{random}$

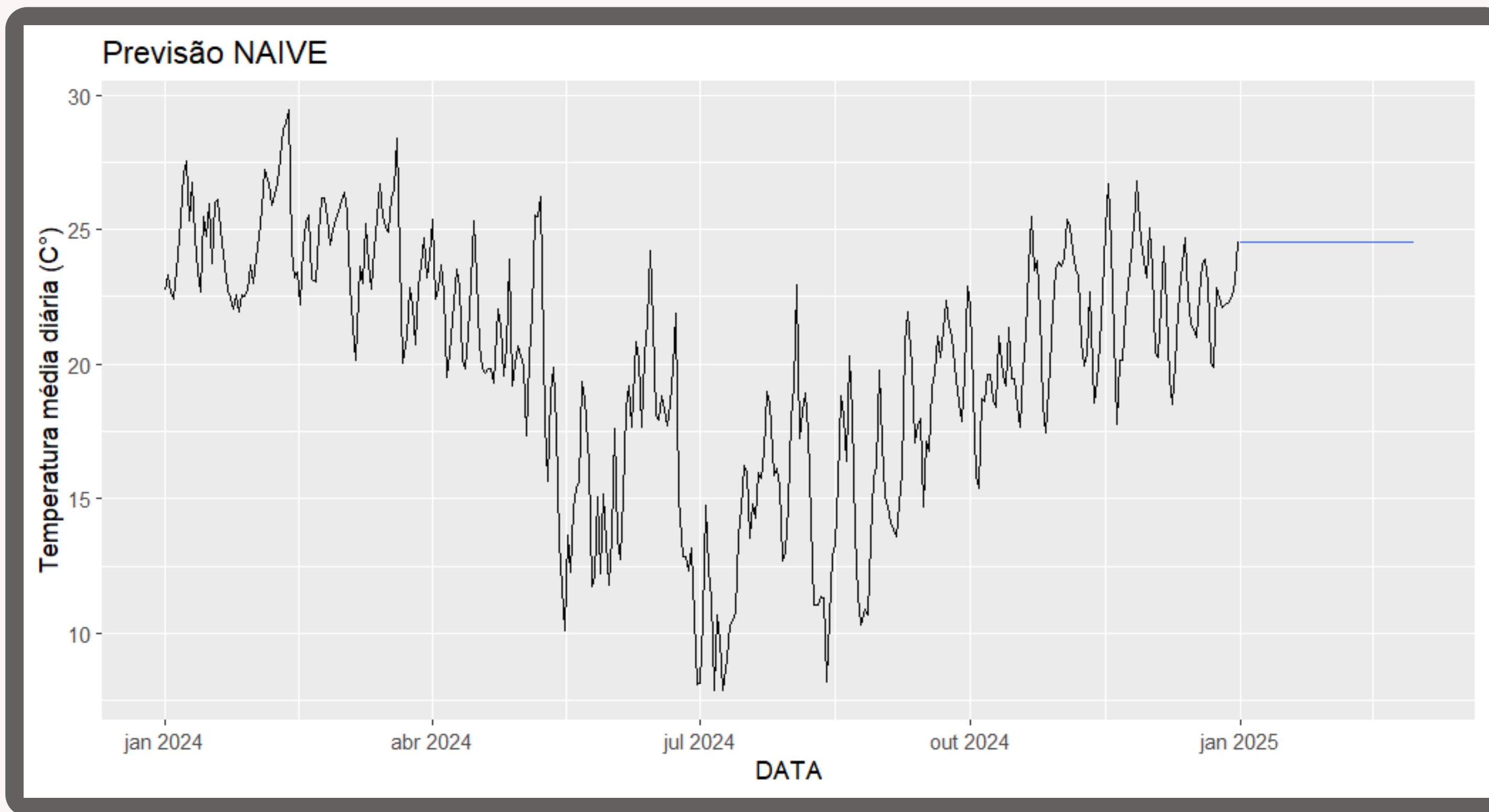


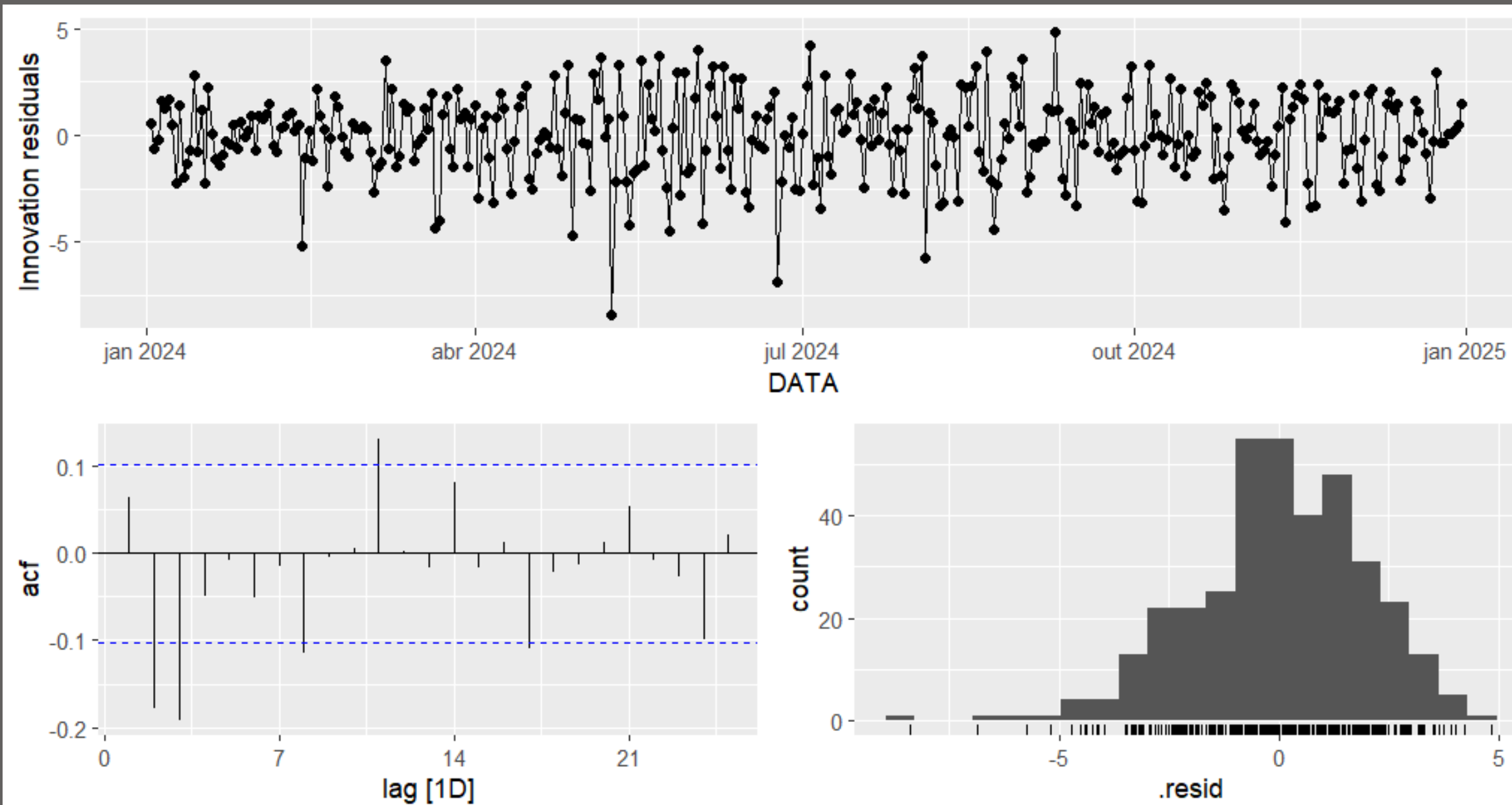


MÉTODOS DE PREVISÃO



PREVISÃO NAIVE





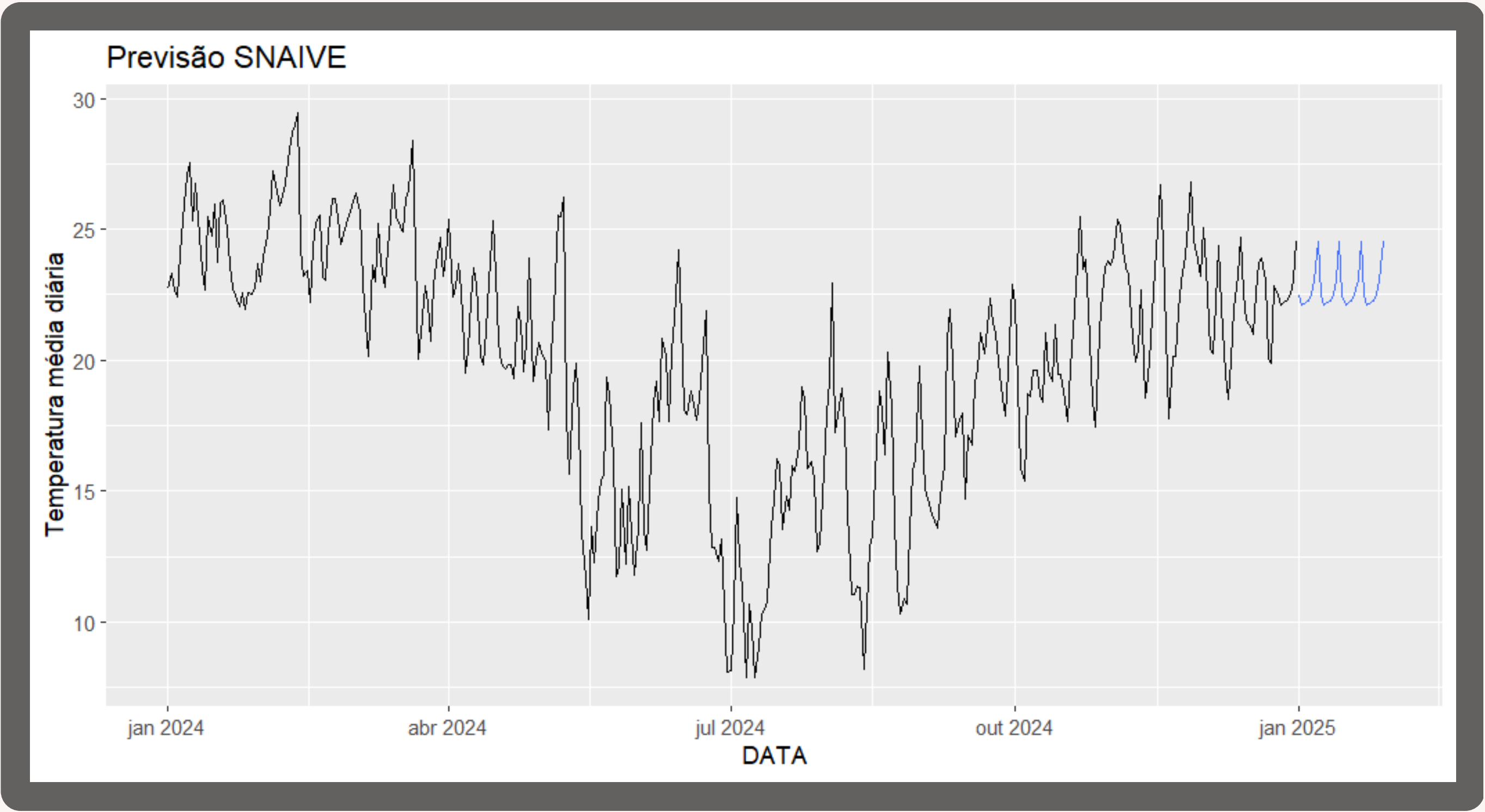
BOX-PIERCE TEST

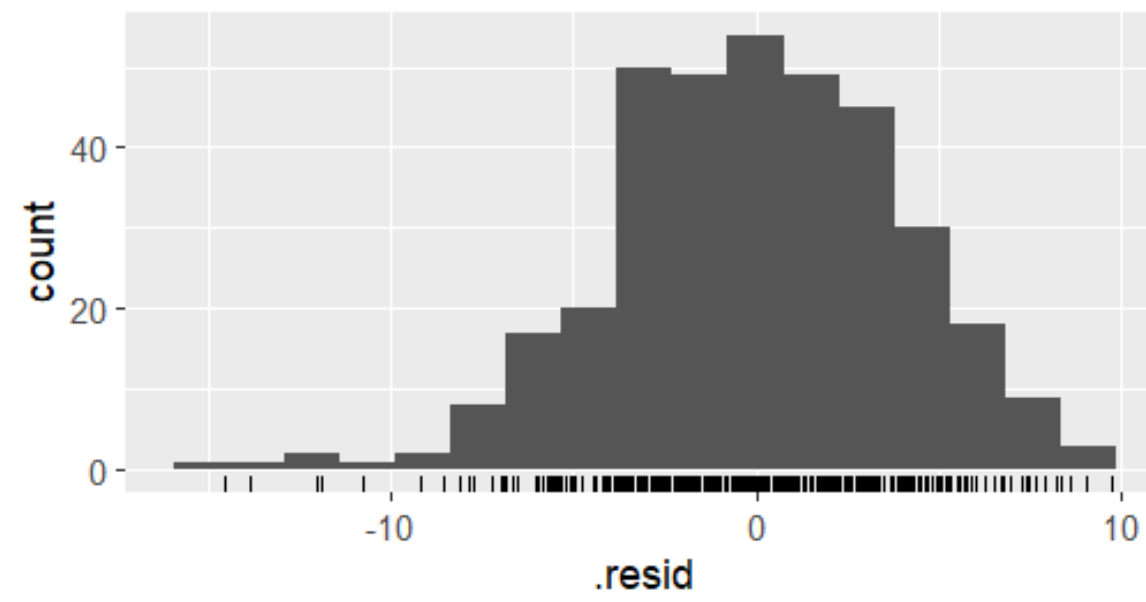
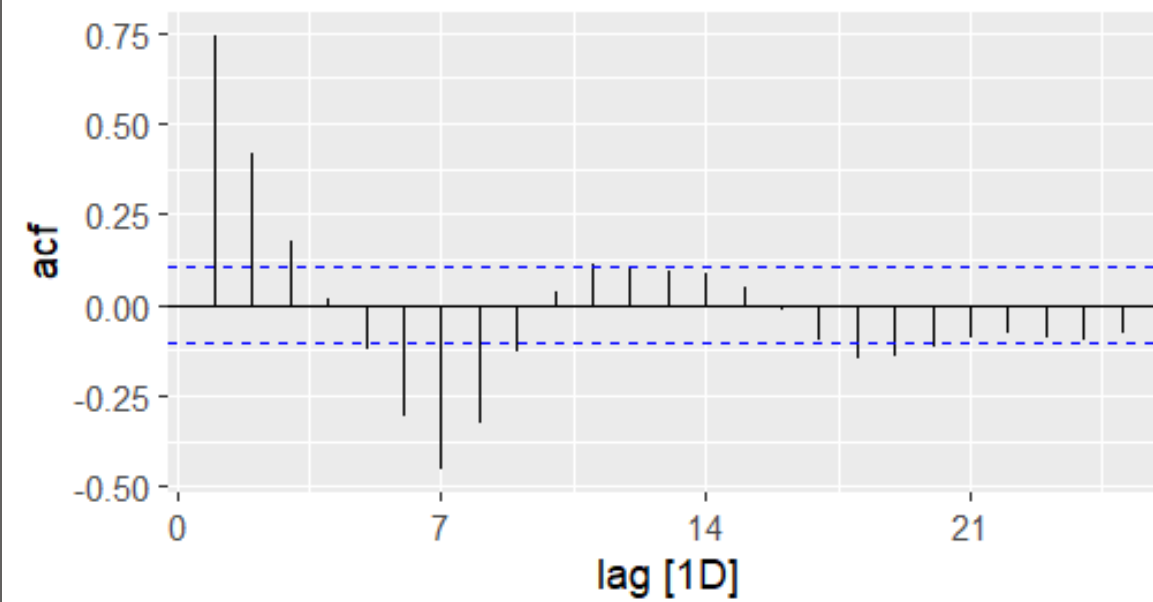
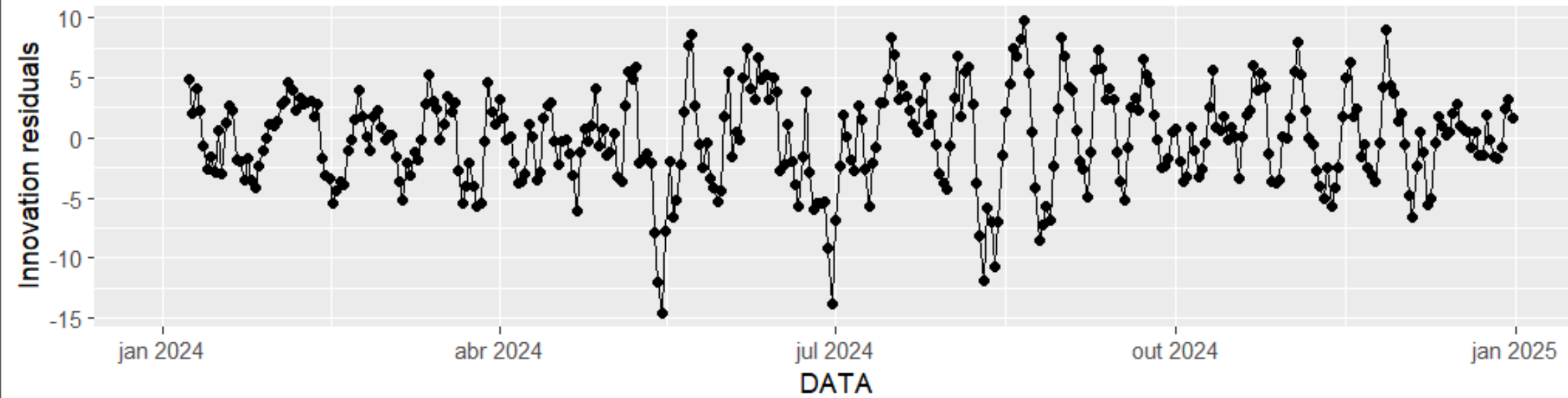
DATA: RESIDUOS\$.INNOV
X-SQUARED = 33.252, DF = 10,
P-VALUE = 0.0002471

BOX-LJUNG TEST

DATA: RESIDUOS\$.INNOV
X-SQUARED = 33.75, DF = 10,
P-VALUE = 0.0002036

PREVISÃO SNAIVE





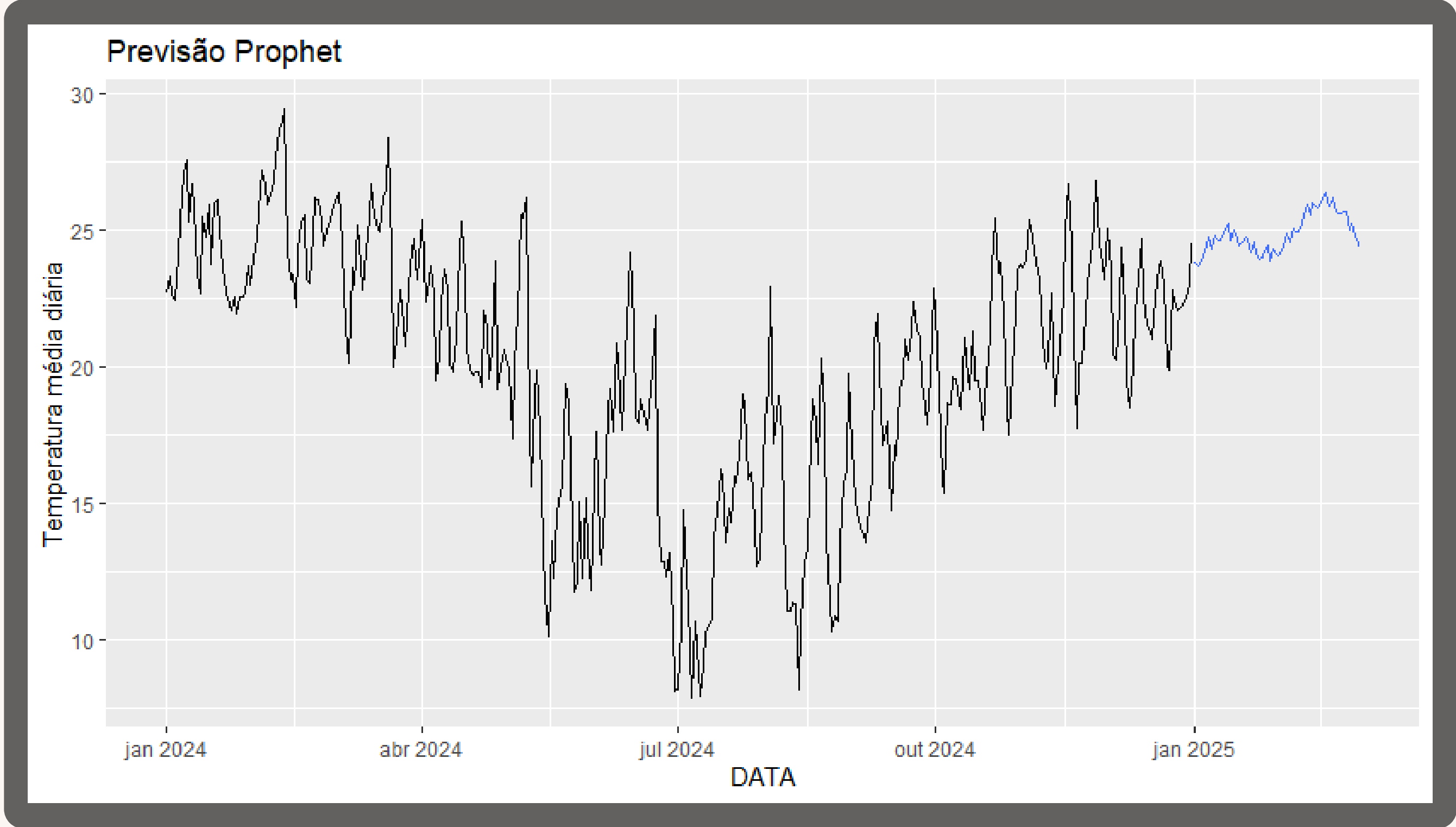
BOX-PIERCE TEST

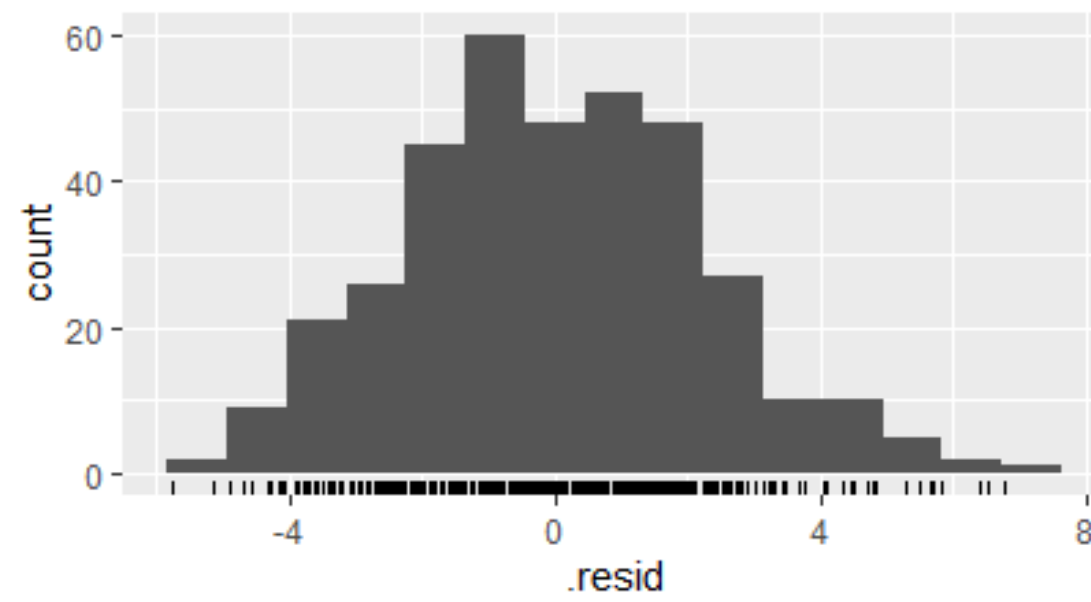
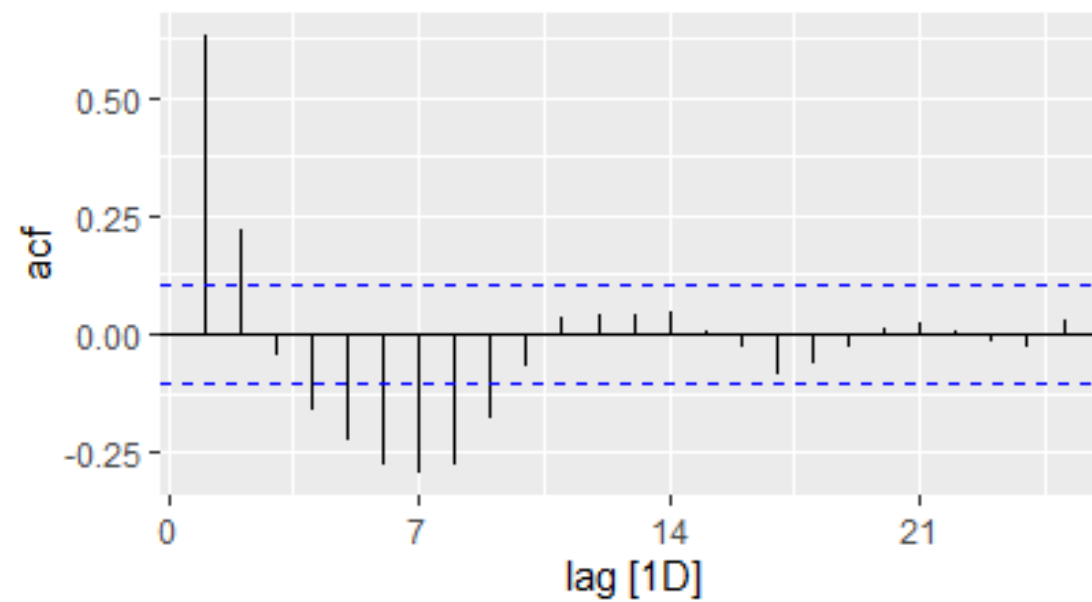
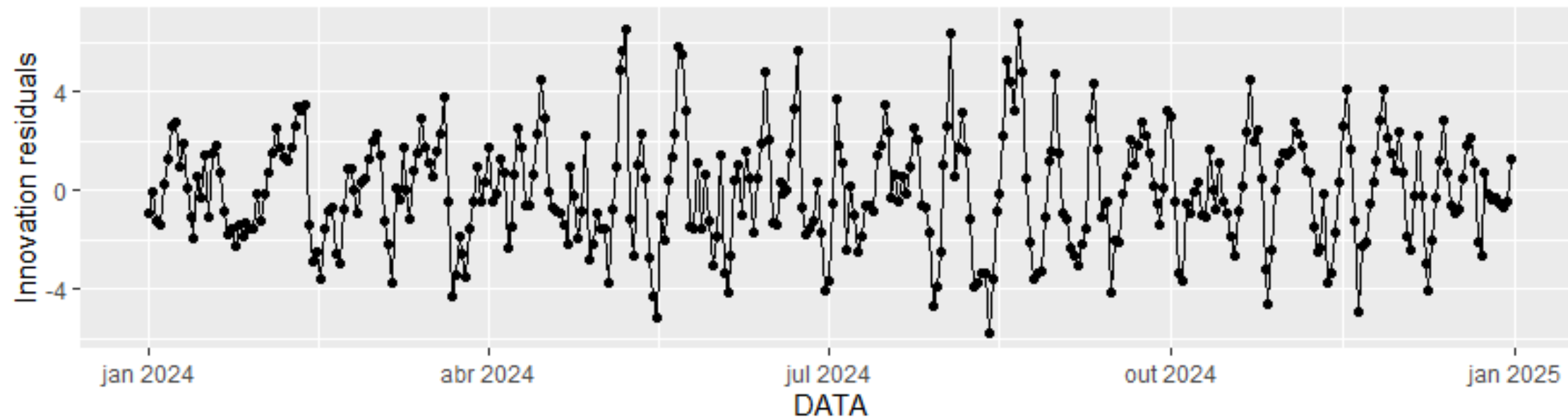
DATA: RESIDUOS\$.INNOV
X-SQUARED = 444.64, DF =
14,
P-VALUE < 2.2E-16

BOX-LJUNG TEST

DATA: RESIDUOS\$.INNOV
X-SQUARED = 451.82, DF =
14,
P-VALUE < 2.2E-16

PROPHET





BOX-PIERCE TEST

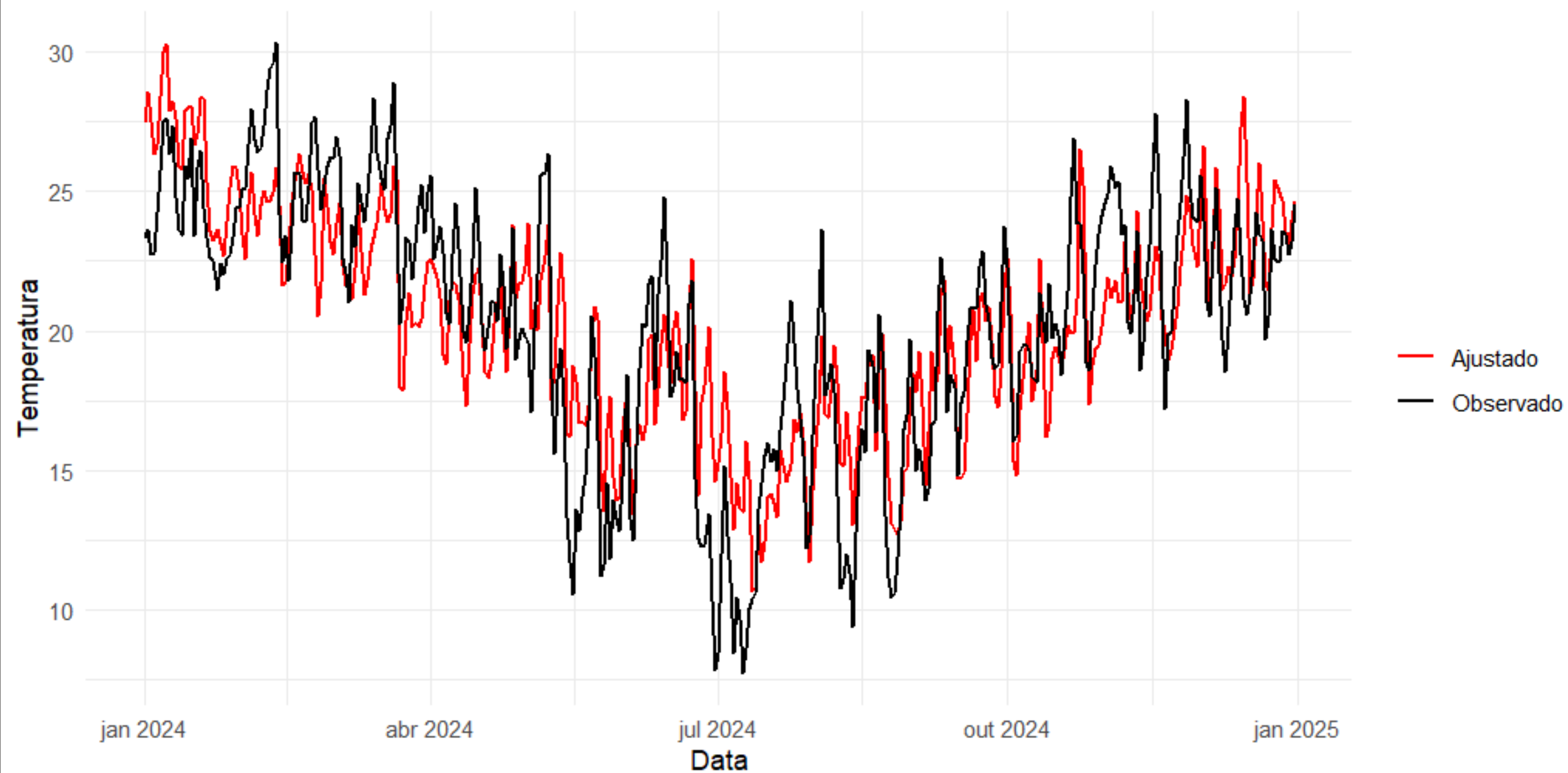
DATA: RESIDUOS\$.INNOV
X-SQUARED = 295.98, DF =
10, P-VALUE < 2.2E-16

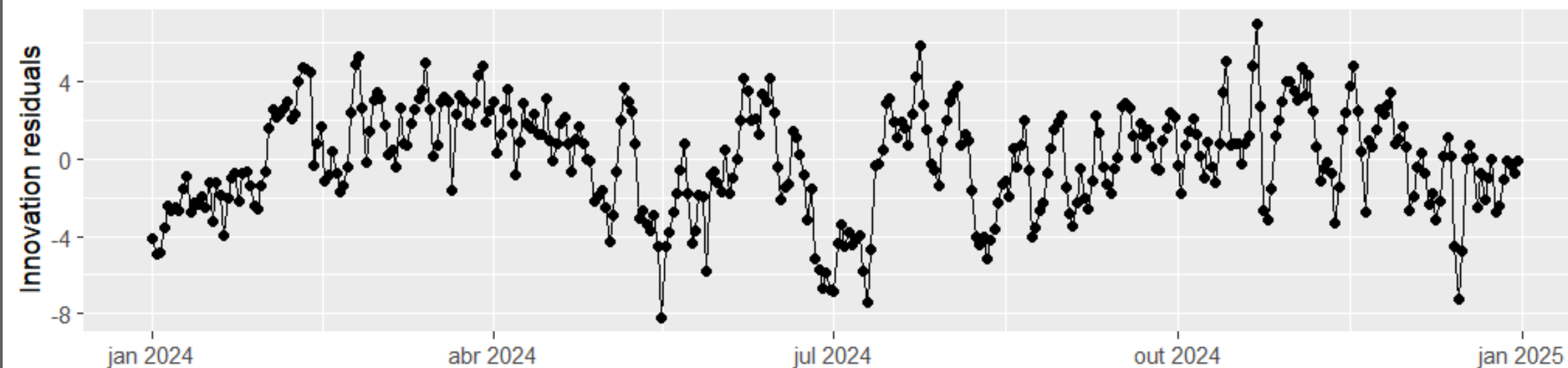
BOX-LJUNG TEST

DATA: RESIDUOS\$.INNOV
X-SQUARED = 300.56, DF =
10, P-VALUE < 2.2E-16

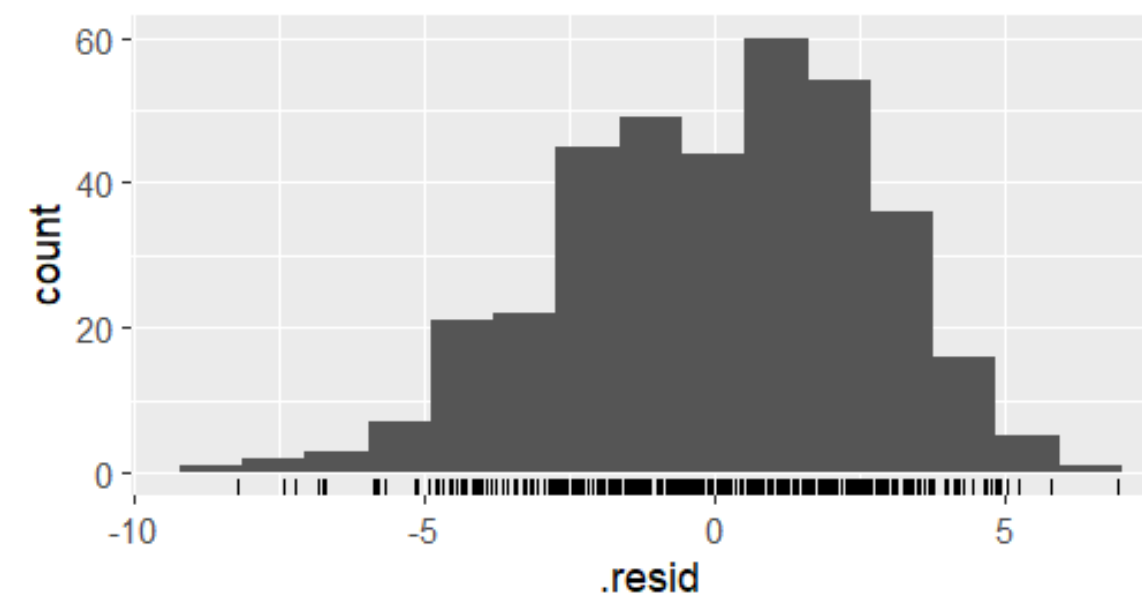
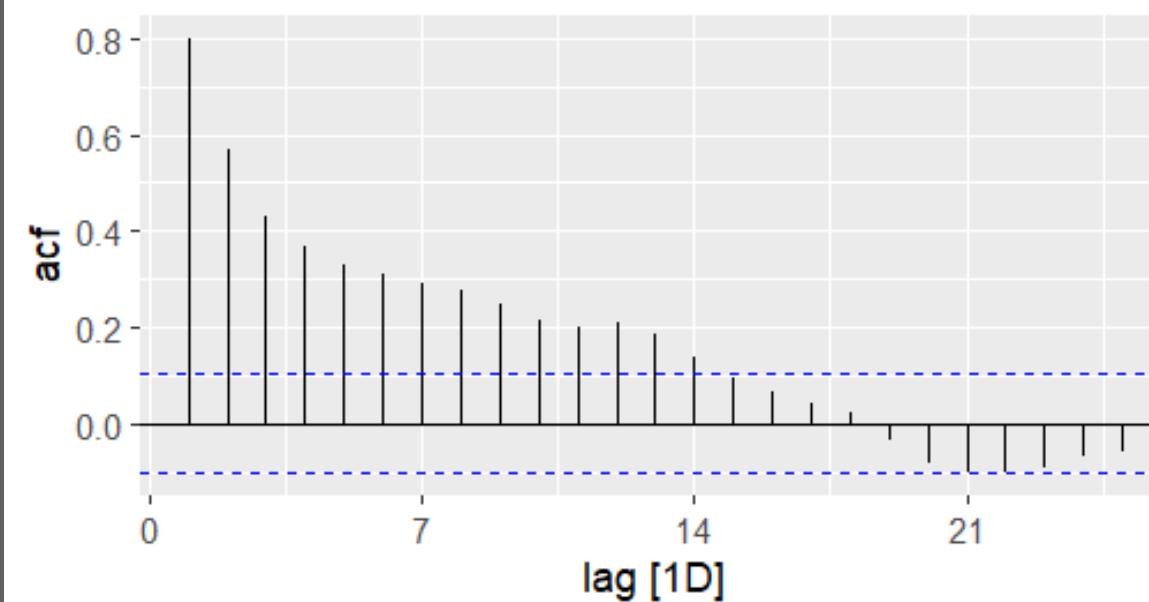
REGRESSÃO

Temperatura Média: Observado vs Ajustado





DATA



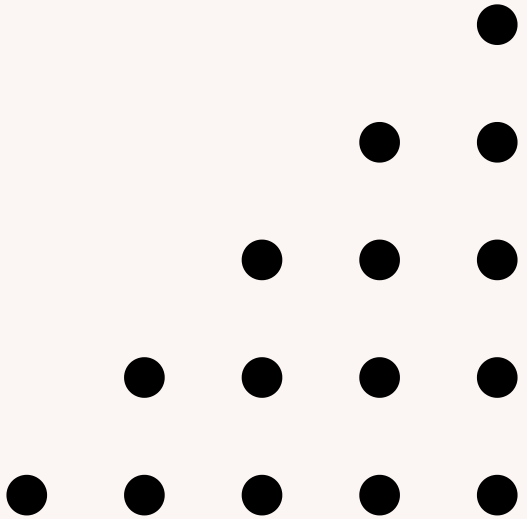
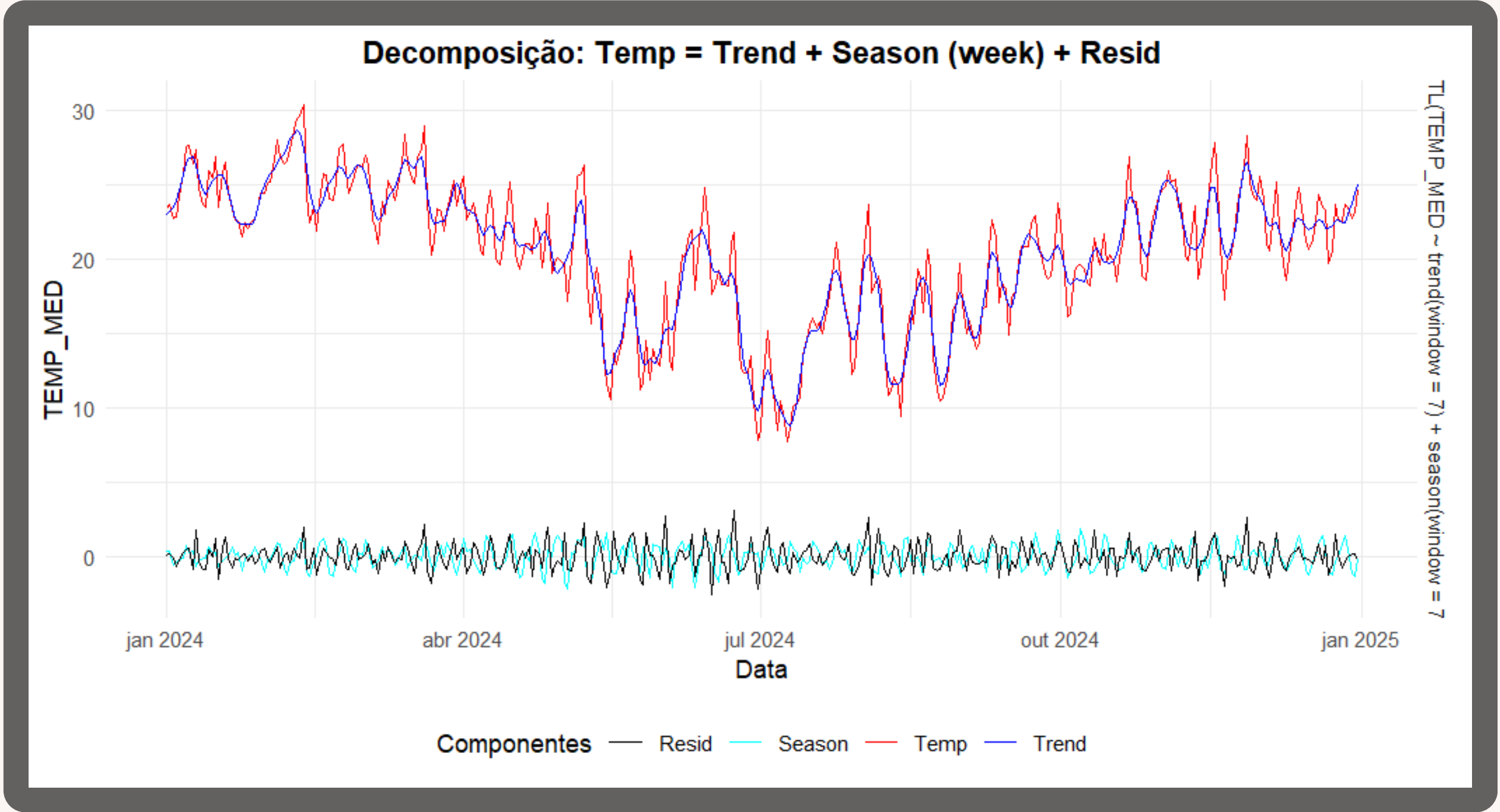
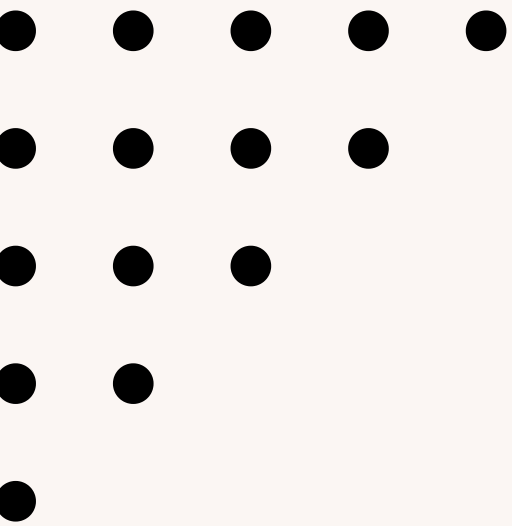
BOX-PIERCE TEST

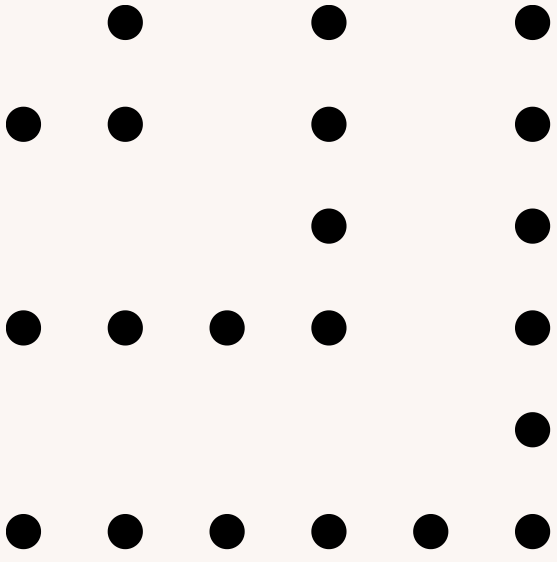
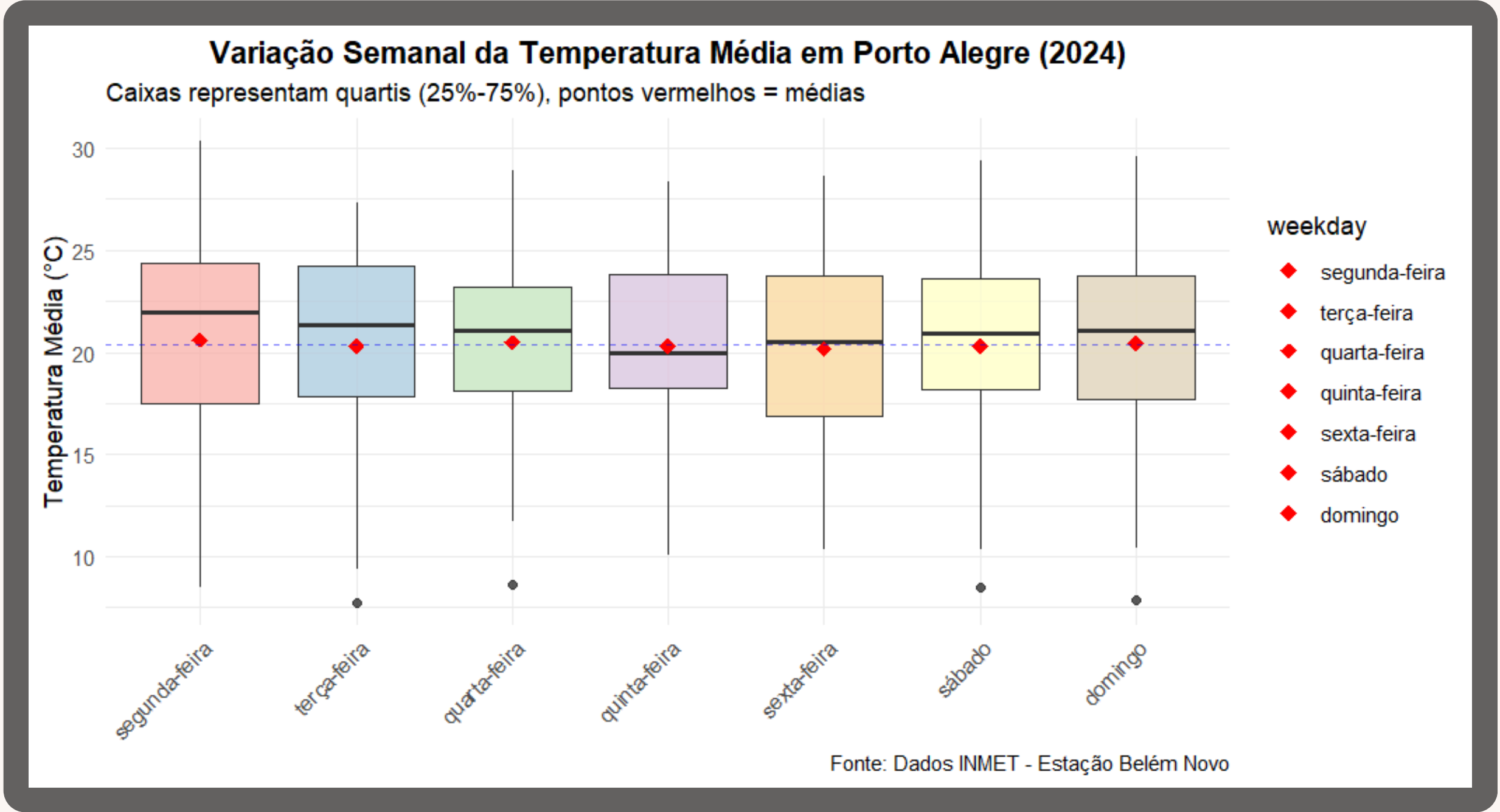
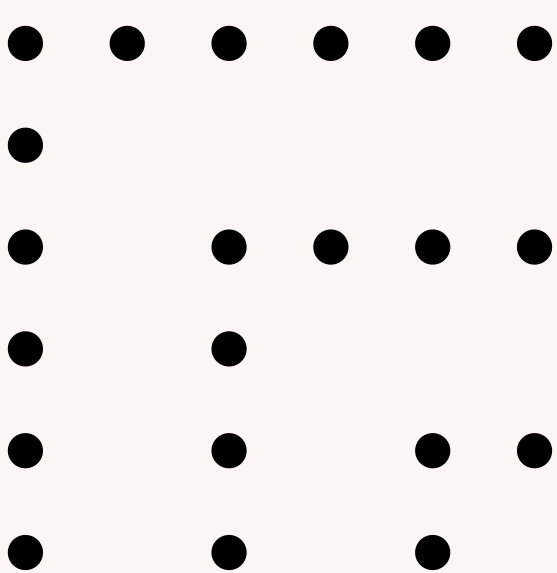
DATA: RESIDUOS\$.INNOV
X-SQUARED = 695.61, DF =
14, P-VALUE < 2.2E-16

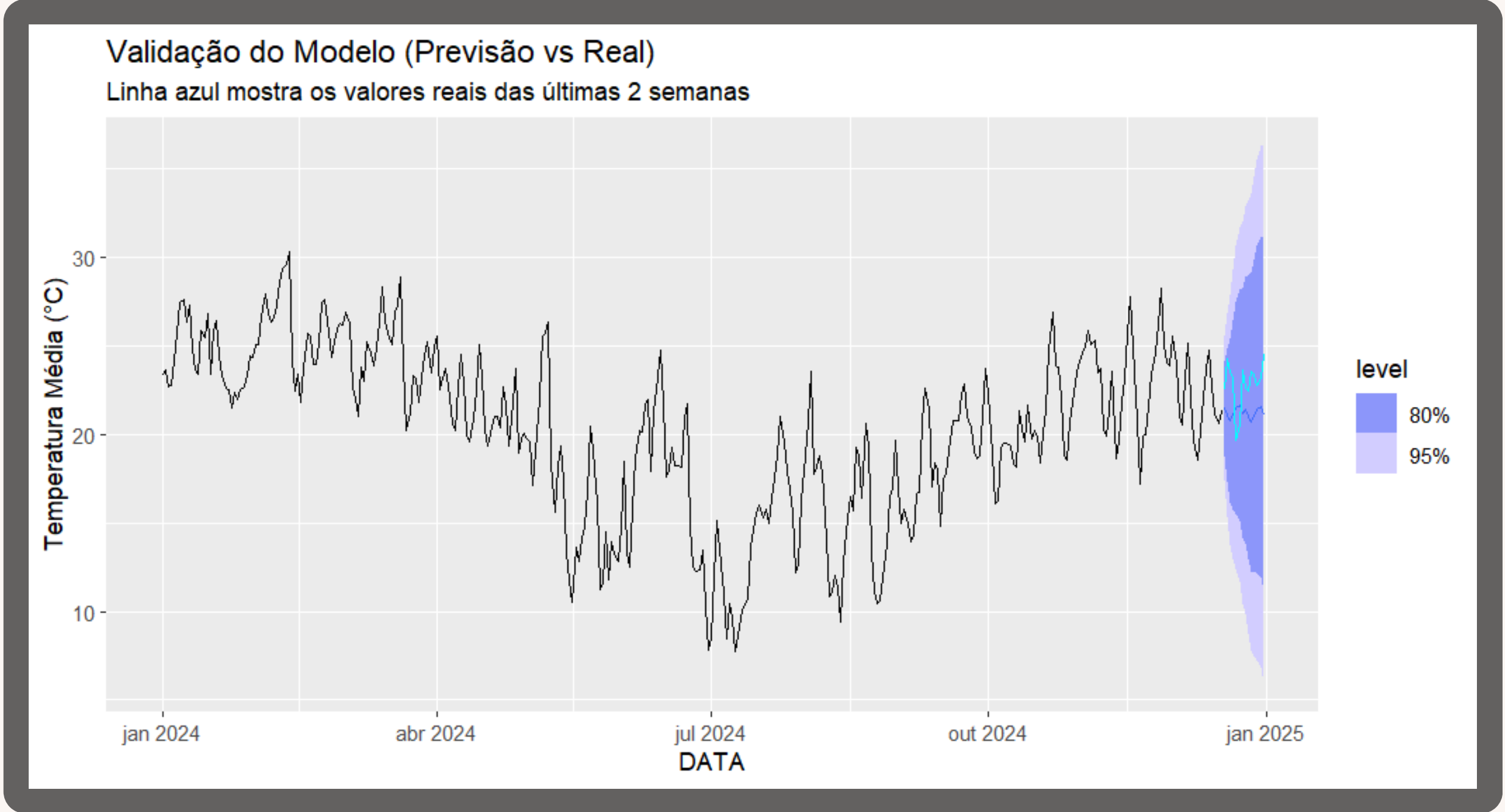
BOX-LJUNG TEST

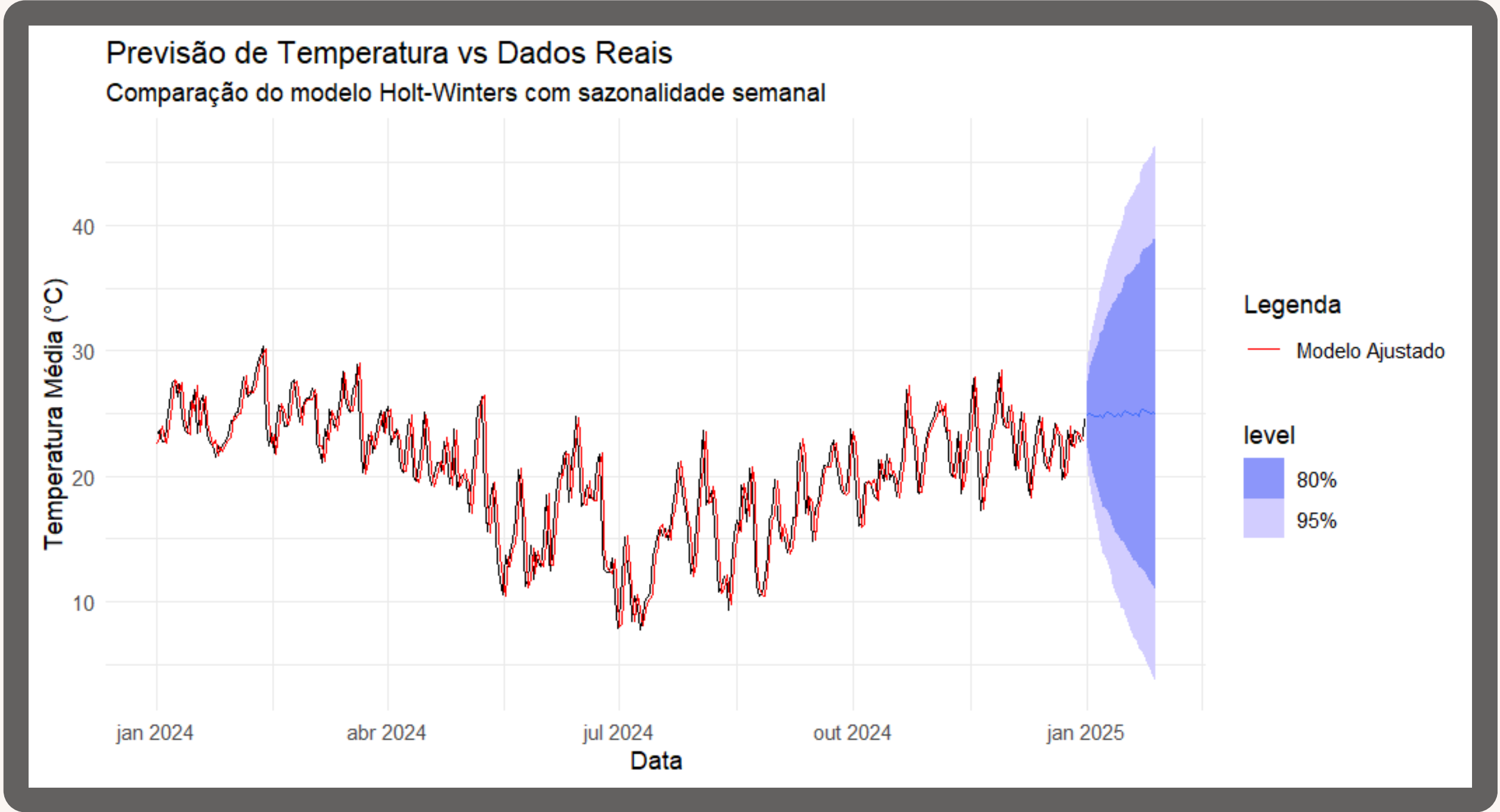
DATA: RESIDUOS\$.INNOV
X-SQUARED = 707.01, DF =
14, P-VALUE < 2.2E-16

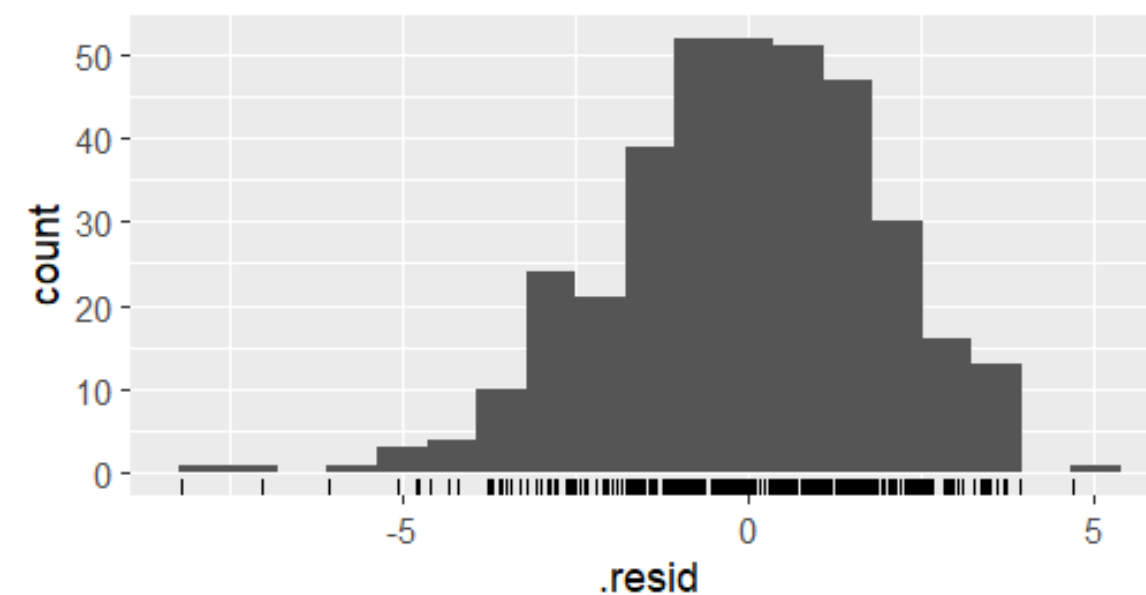
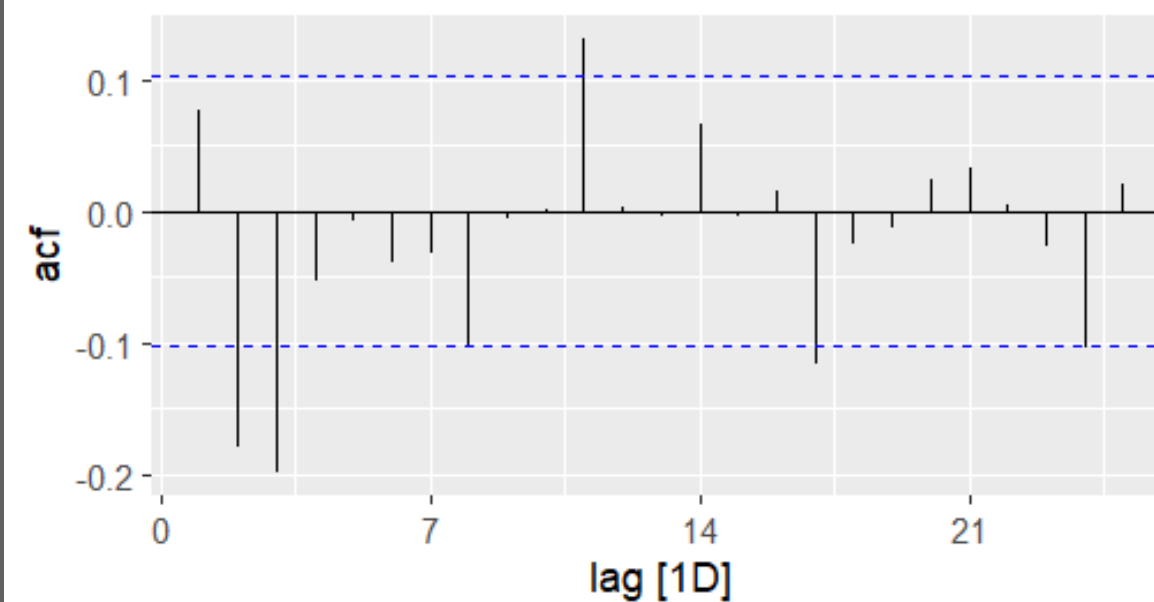
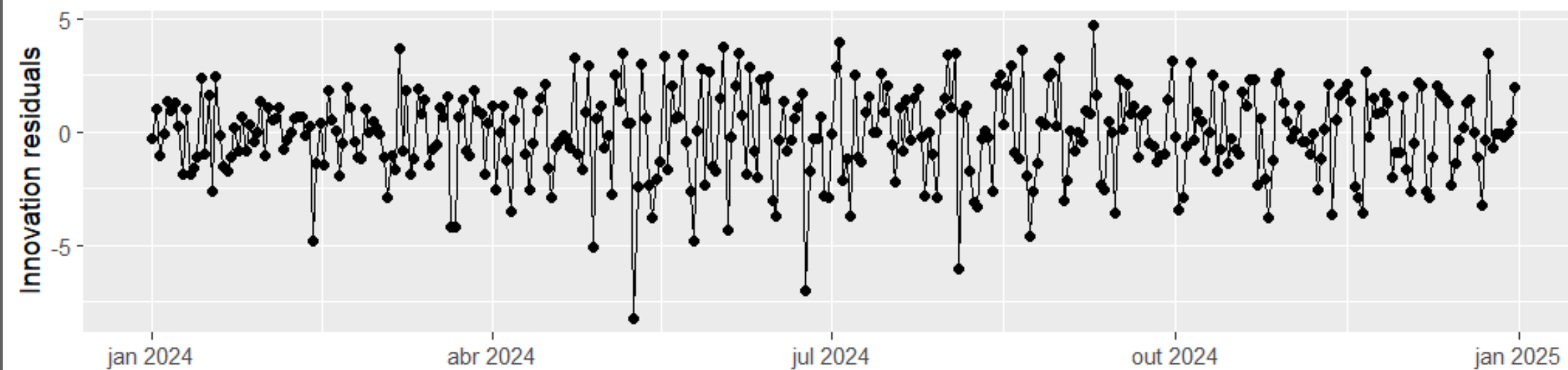
SUAVIZAÇÃO EXPONENCIAL











BOX-PIERCE TEST

DATA: RESIDUOS\$.INNOV
X-SQUARED = 42.227, DF =
14, P-VALUE = 0.0001138

BOX-LJUNG TEST

DATA: RESIDUOS\$.INNOV
X-SQUARED = 43.025, DF =
14, P-VALUE = 8.487E-05

AGRADECEMOS A TODOS QUE ASSISTIRAM

