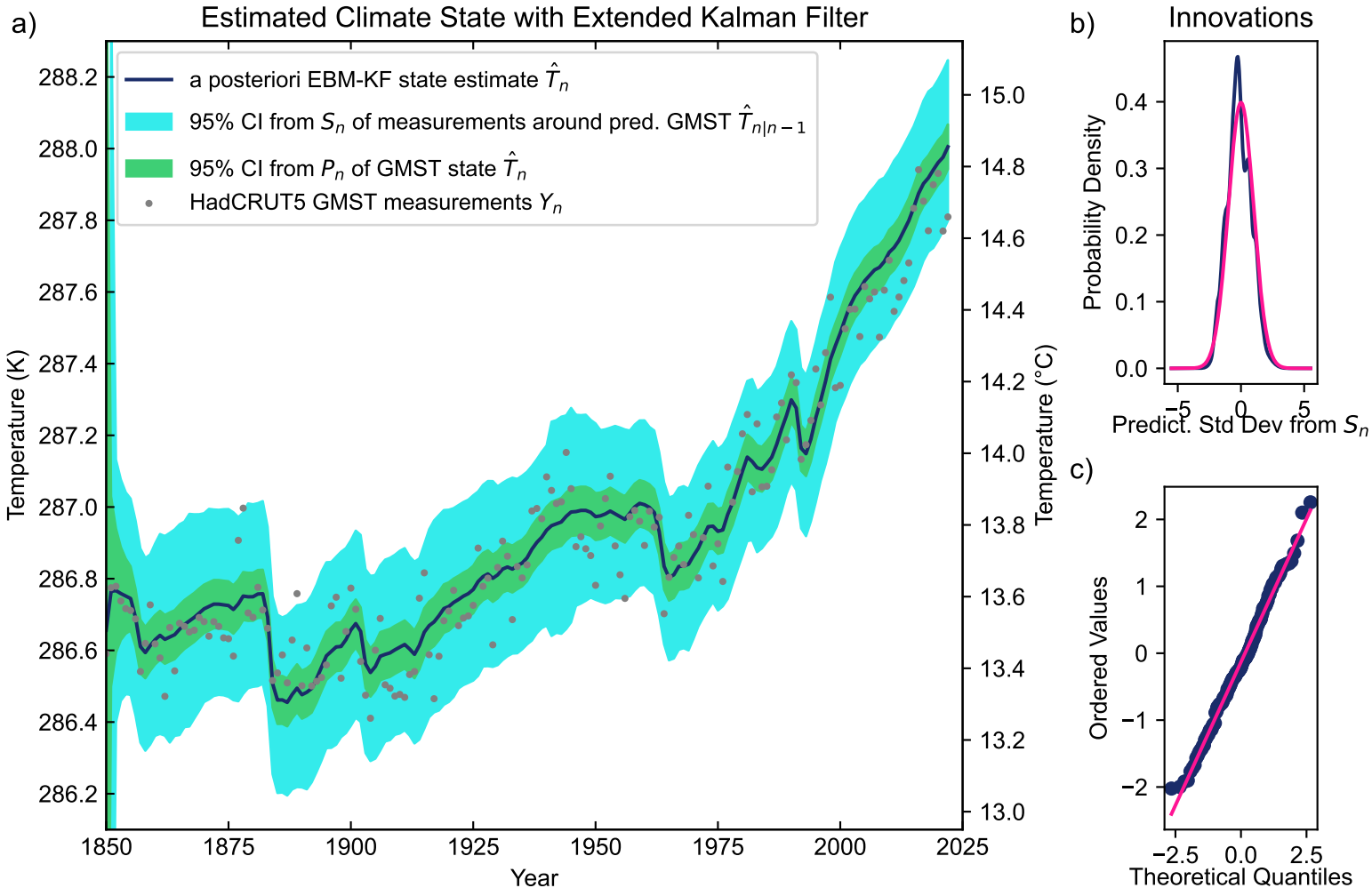
a)
Estimated Climate State with Extended Kalman Filter
a posteriori EBM-KF state estimate $\hat{T}_n$
95% CI from S_n of measurements around pred. GMST $\hat{T}_{n|n-1}$
95% CI from P_n of GMST state $\hat{T}_n$
HadCRUT5 GMST measurements Y_n
Temperature (K)
Temperature (°C)
Year
288.2
288.0
287.8
287.6
287.4
287.2
287.0
286.8
286.6
286.4
286.2
15.0
14.8
14.6
14.4
14.2
14.0
13.8
13.6
13.4
13.2
13.0
1850
1875
1900
1925
1950
1975
2000
2025
b)
Innovations
Probability Density
0.4
0.3
0.2
0.1
0.0
−5
0
5
Predict. Std Dev from S_n
c)
Ordered Values
2
1
0
−1
−2
−2.5
0.0
2.5
Theoretical Quantiles