



ICON-IT verification

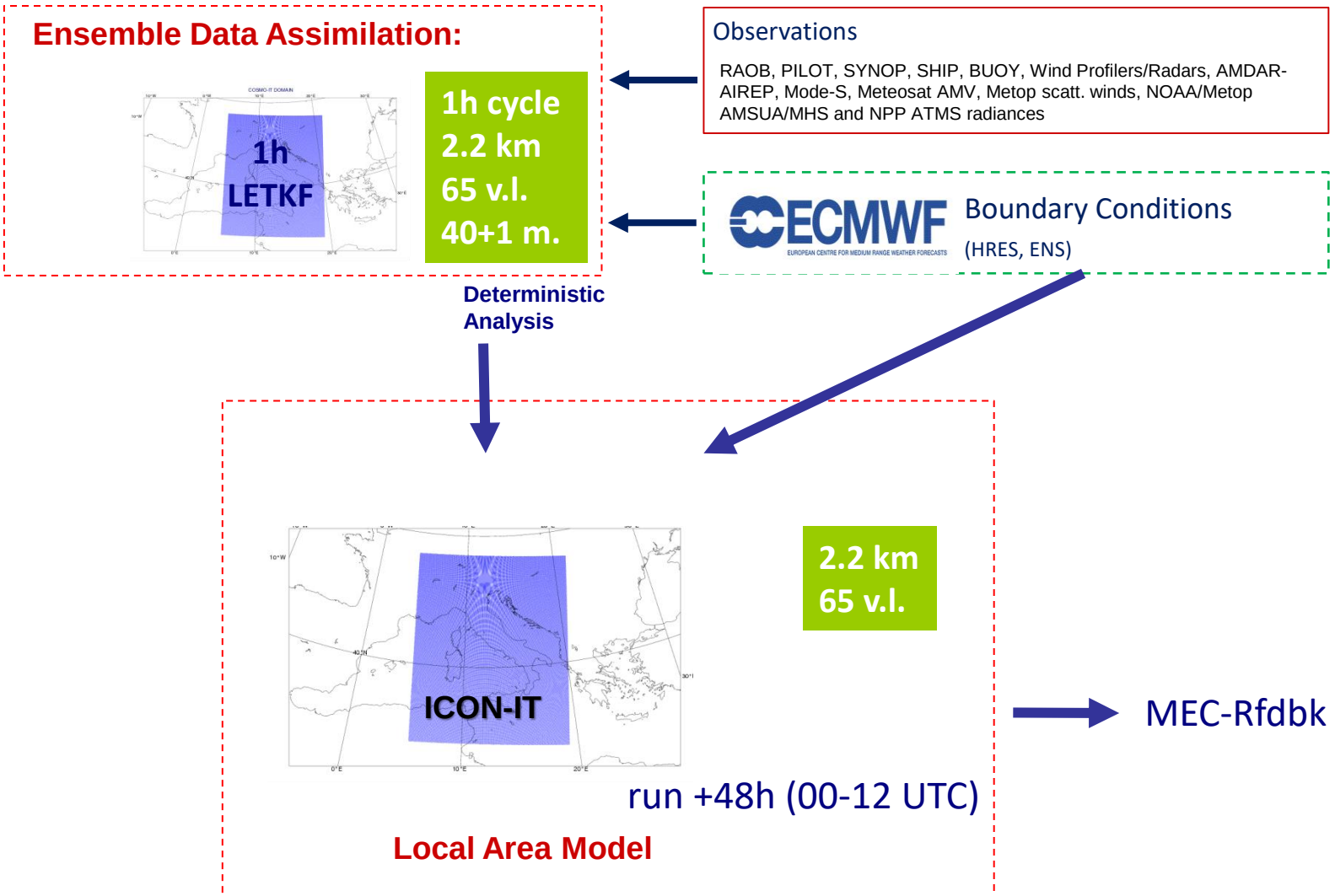
CNMCA

21 January 2025

Francesco BATIGNANI



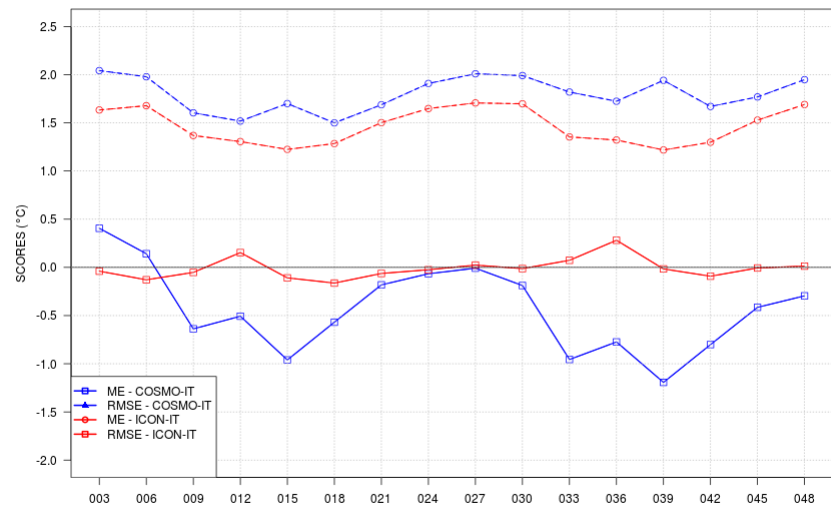
ICON-IT setup @ CNMCA



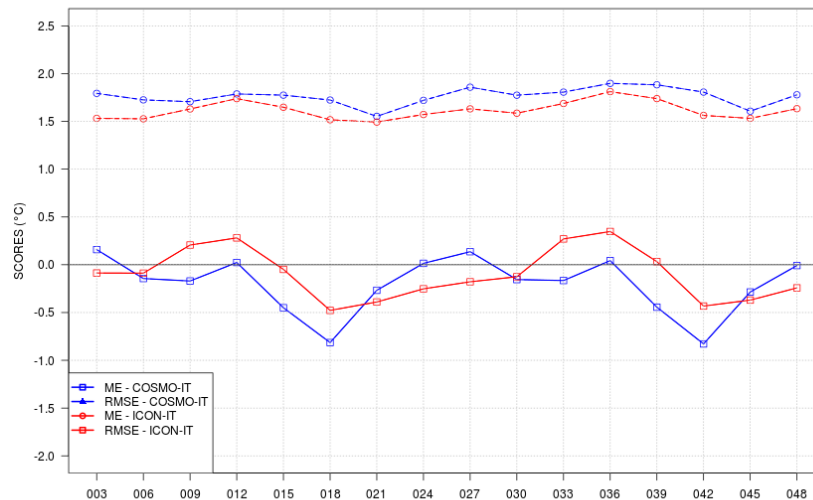
T2M

ICON-IT verification DJF 2023-24 – SON 2024

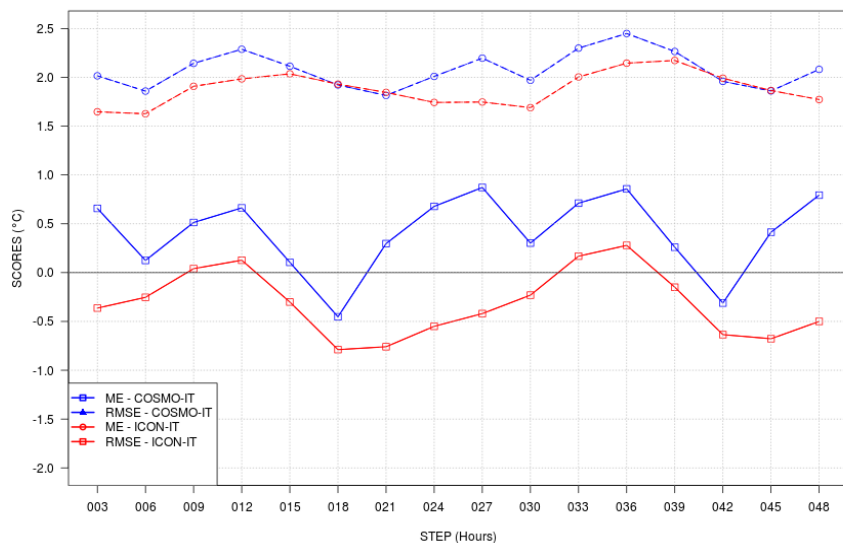
SCORES vs STEP - T2M - DJF 2024 - ALL ITA stations ALL



SCORES vs STEP - T2M - MAM 2024 - ALL ITA stations ALL

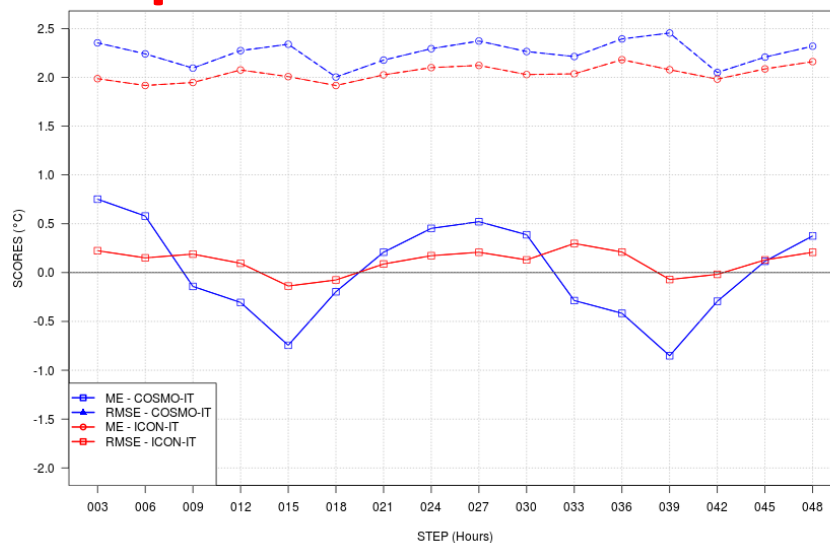


SCORES vs STEP - T2M - JJA 2024 - ALL ITA stations ALL



score vs step

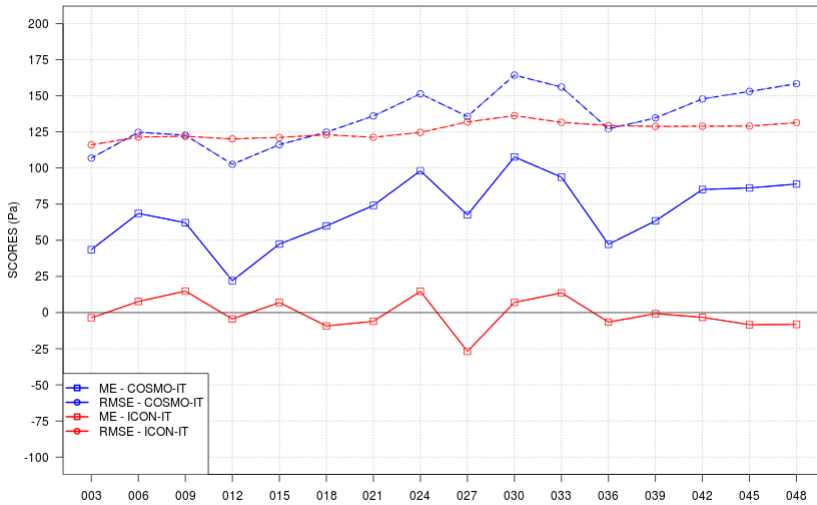
SCORES vs STEP - T2M - SON 2024 - ALL ITA stations ALL



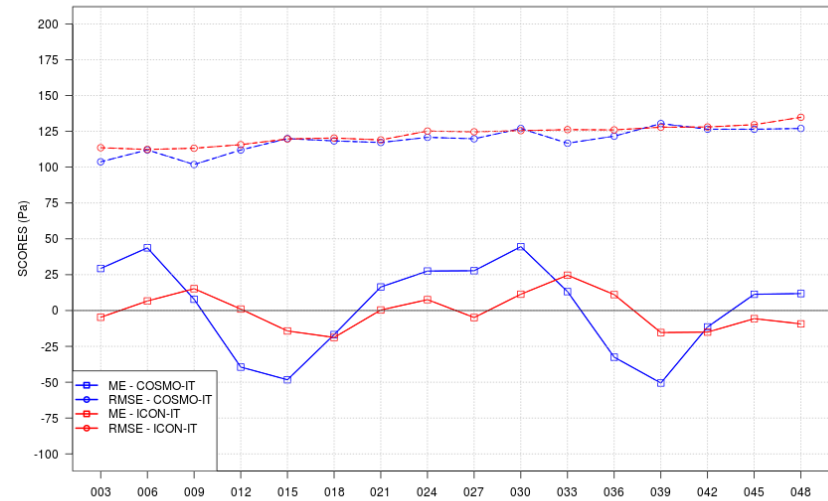
PS

ICON-IT verification DJF 2023-24 – SON 2024

SCORES vs STEP - PS - DJF 2024 - ALL ITA stations ALL



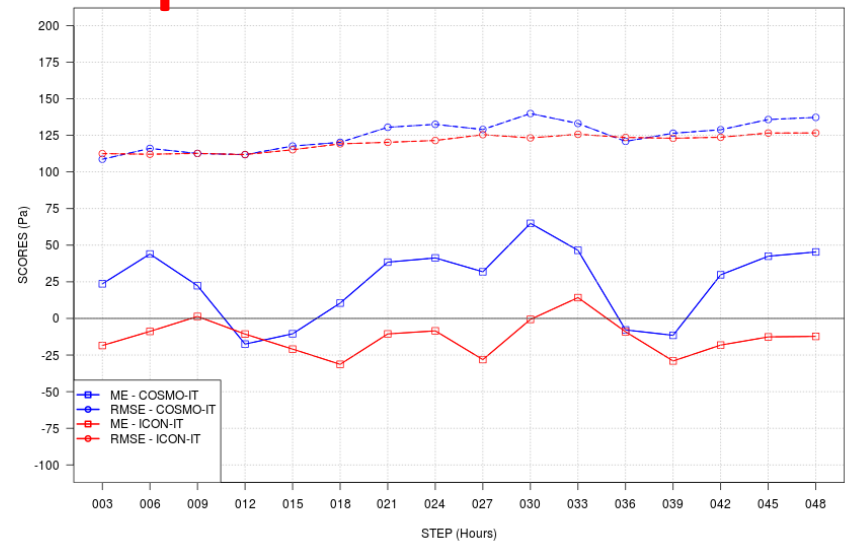
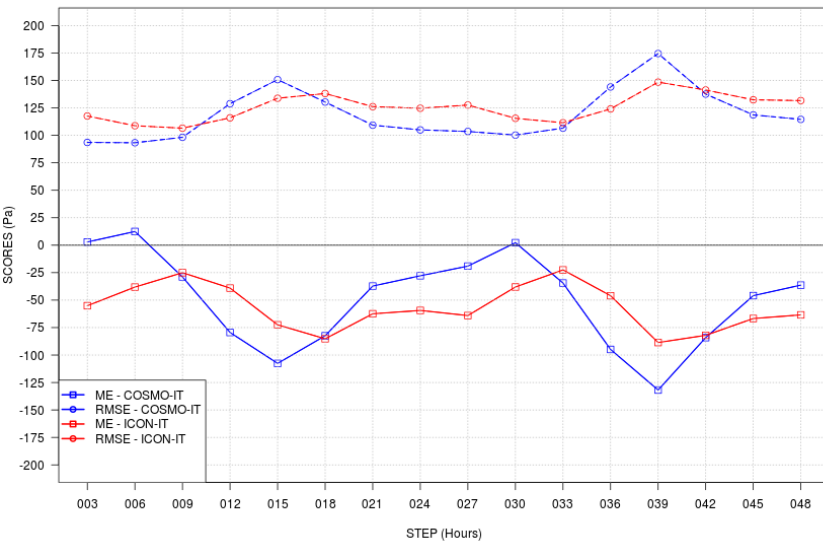
SCORES vs STEP - PS - MAM 2024 - ALL ITA stations ALL



SCORES vs STEP - PS - JJA 2024 - ALL ITA stations ALL

score vs step

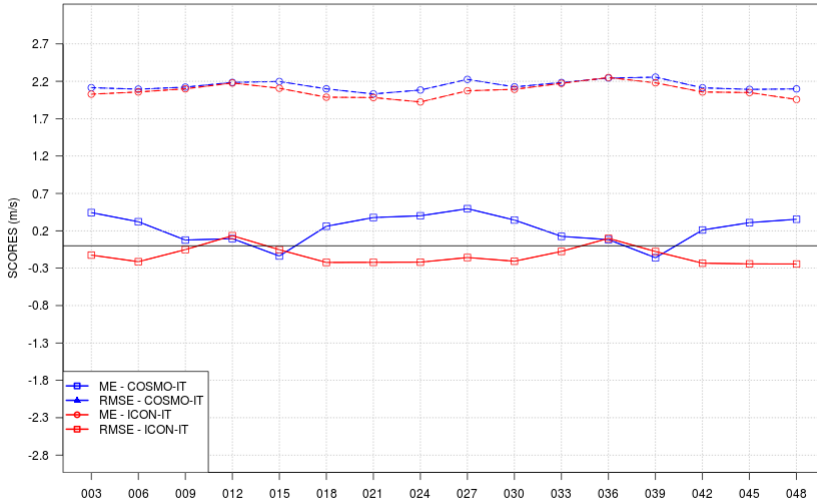
SCORES vs STEP - PS - SON 2024 - ALL ITA stations ALL



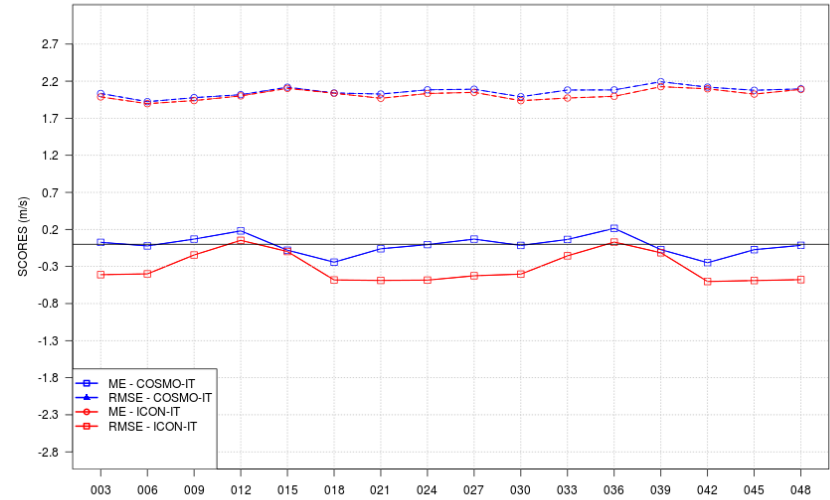
WS 10m

ICON-IT verification DJF 2023-24 – SON 2024

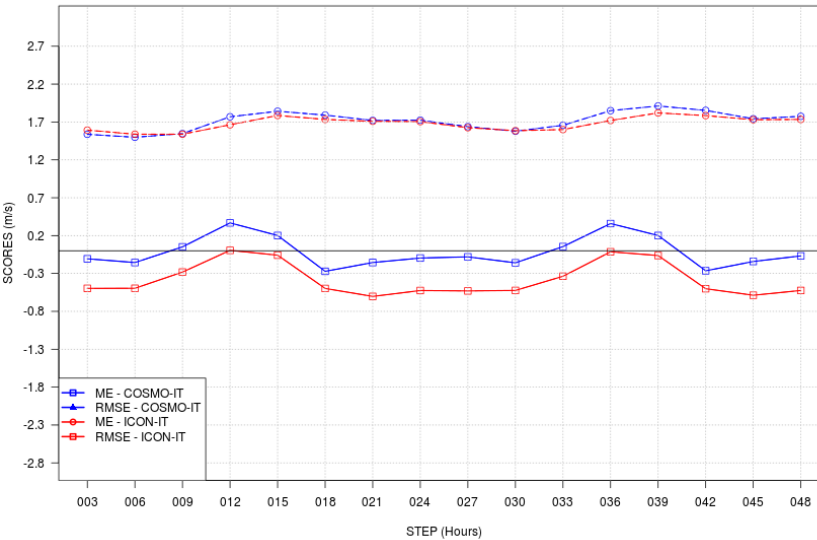
SCORES vs STEP - WS - DJF 2024 - ALL ITA stations



SCORES vs STEP - WS - MAM 2024 - ALL ITA stations

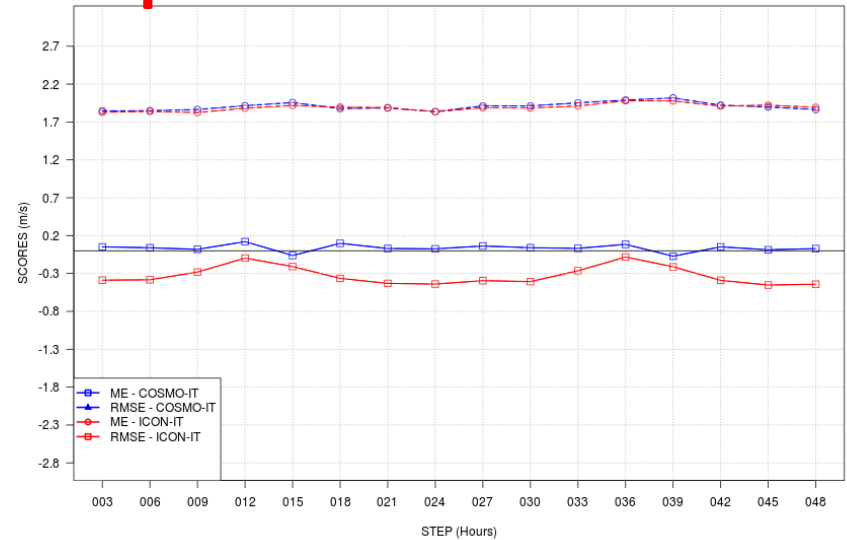


SCORES vs STEP - WS - JJA 2024 - ALL ITA stations



score vs step

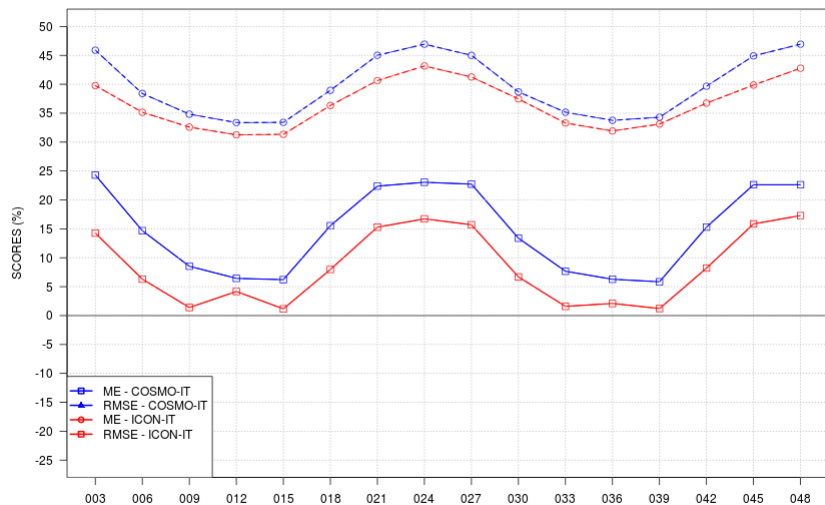
SCORES vs STEP - WS - SON 2024 - ALL ITA stations



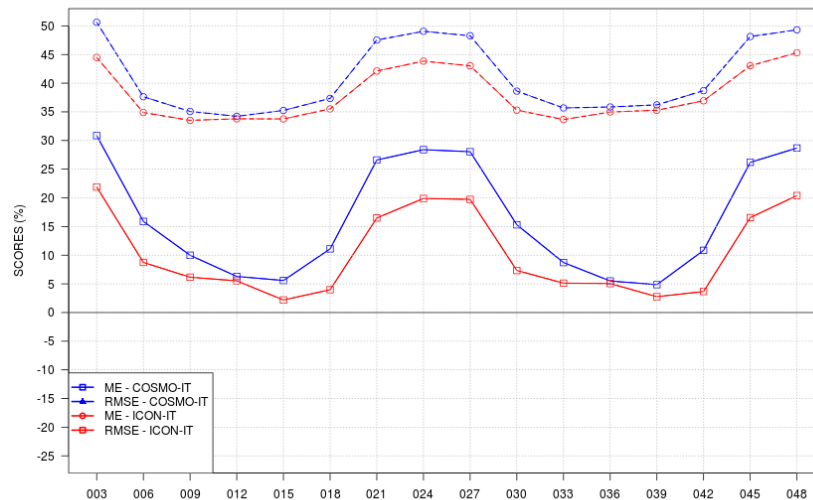
TCC

ICON-IT verification DJF 2023-24 – SON 2024

SCORES vs STEP - TCC - DJF 2024 - ALL ITA stations ALL

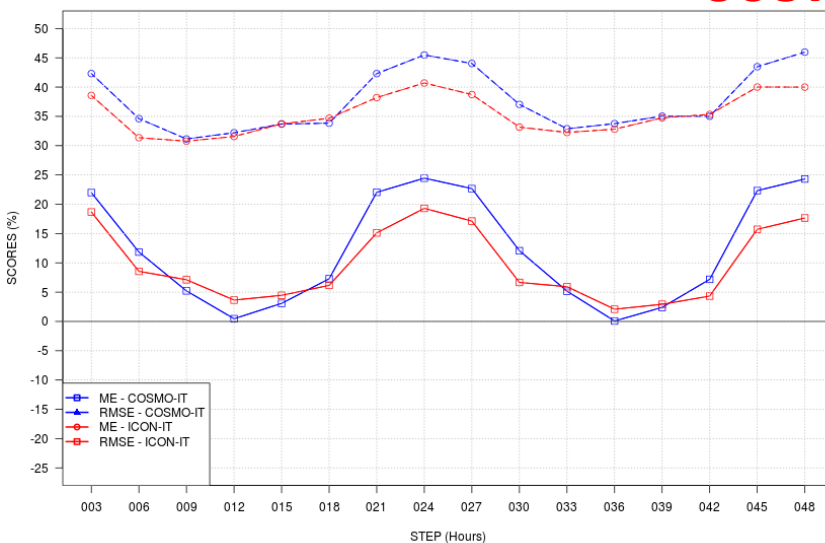


SCORES vs STEP - TCC - MAM 2024 - ALL ITA stations ALL

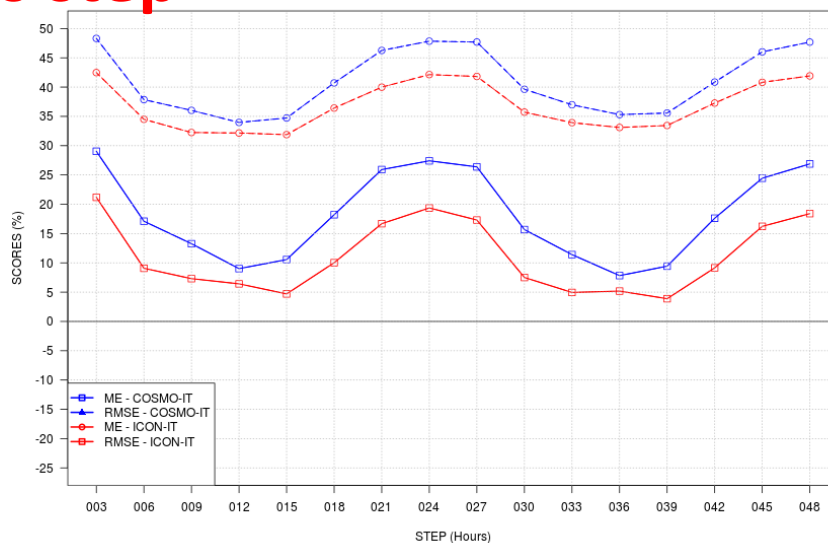


SCORES vs STEP - TCC - JJA 2024 - ALL ITA stations ALL

score vs step



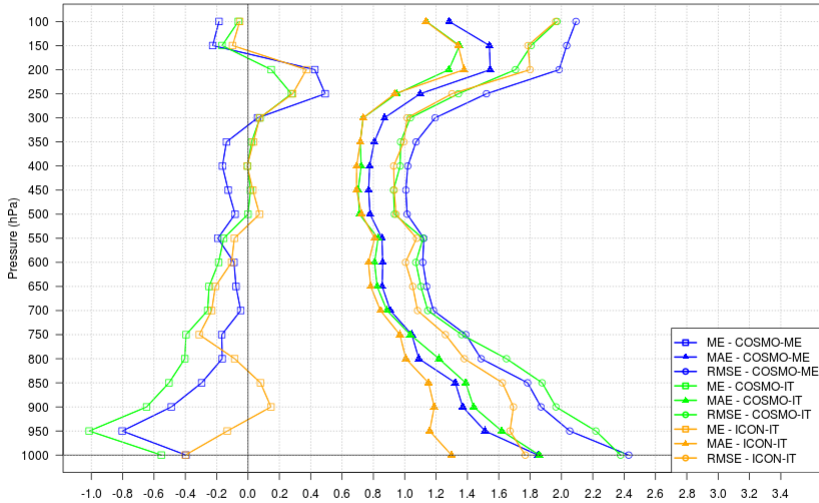
SCORES vs STEP - TCC - SON 2024 - ALL ITA stations ALL



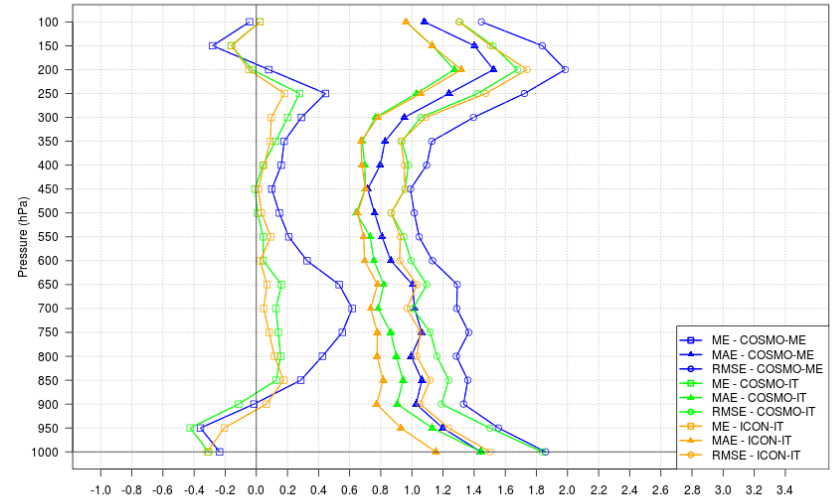
ME, MAE,
RMSE

ICON-IT verification DJF 2023-24 – SON 2024

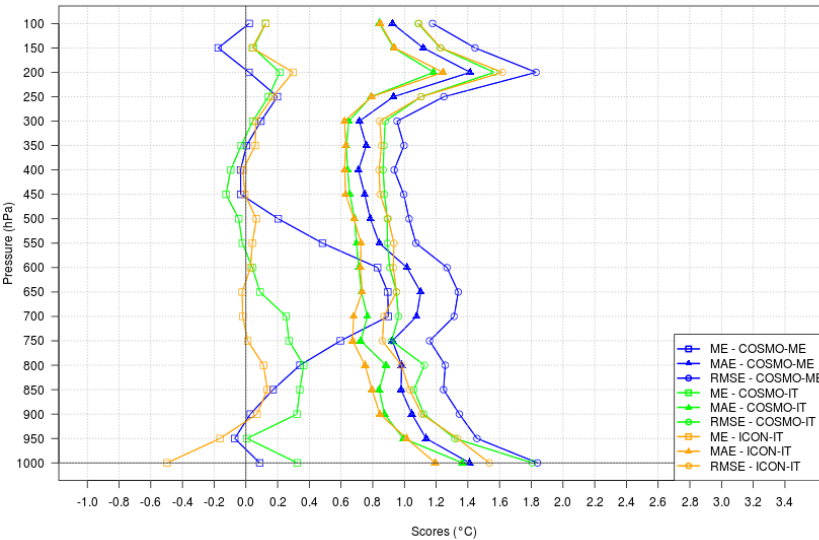
SCORES - T - DJF 2024 - All ITA TEMP stations - step048



SCORES - T - MAM 2024 - All ITA TEMP stations - step048

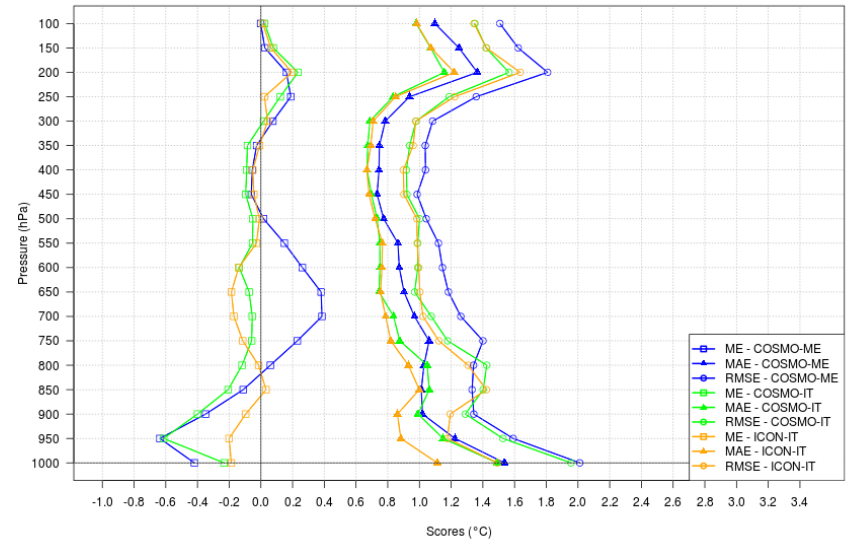


SCORES - T - JJA 2024 - All ITA TEMP stations - step048



T, upper,+48h

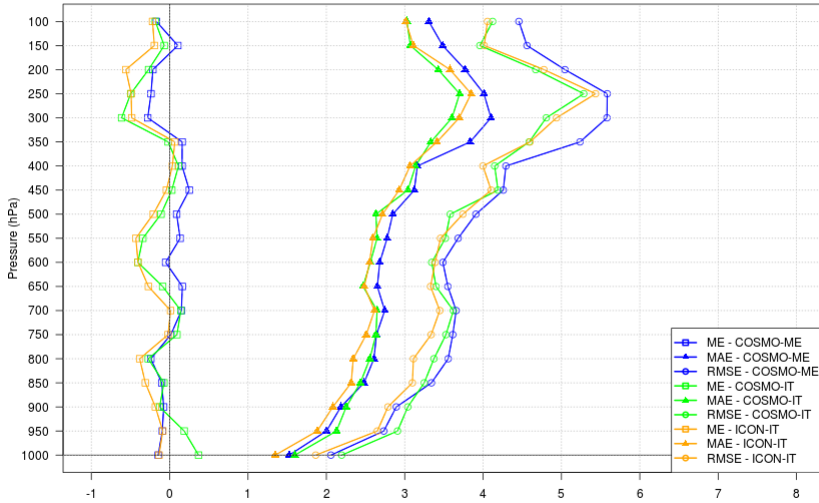
SCORES - T - SON 2024 - All ITA TEMP stations - step048



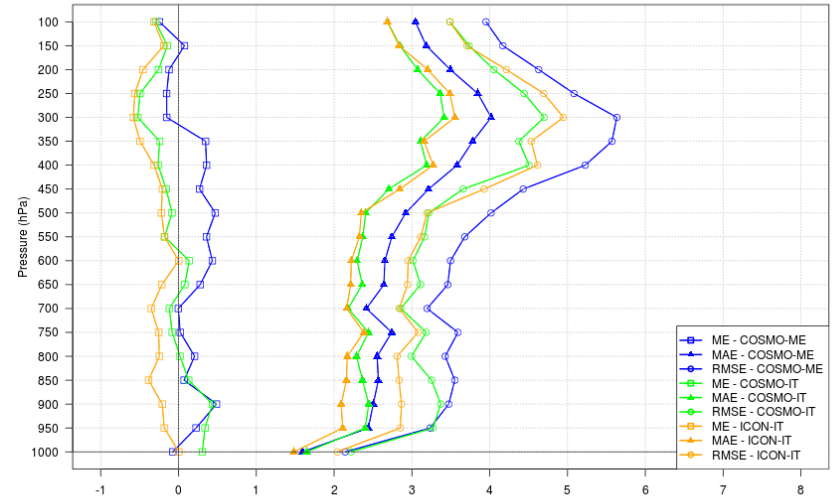
**ME, MAE,
RMSE**

ICON-IT verification DJF 2023-24 – SON 2024

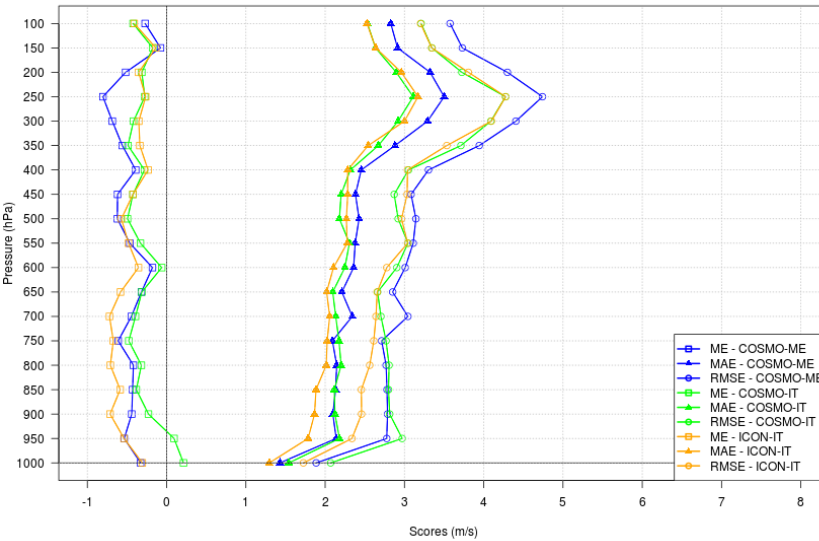
SCORES - WSpeed - DJF 2024 - All ITA TEMP stations - step048



SCORES - WSpeed - MAM 2024 - All ITA TEMP stations - step048

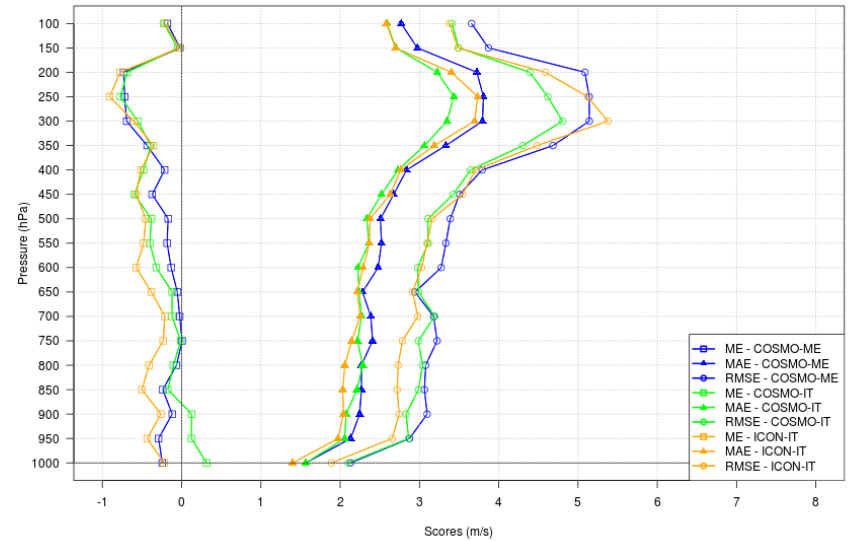


SCORES - WSpeed - JJA 2024 - All ITA TEMP stations - step048



WS, upper,+48h

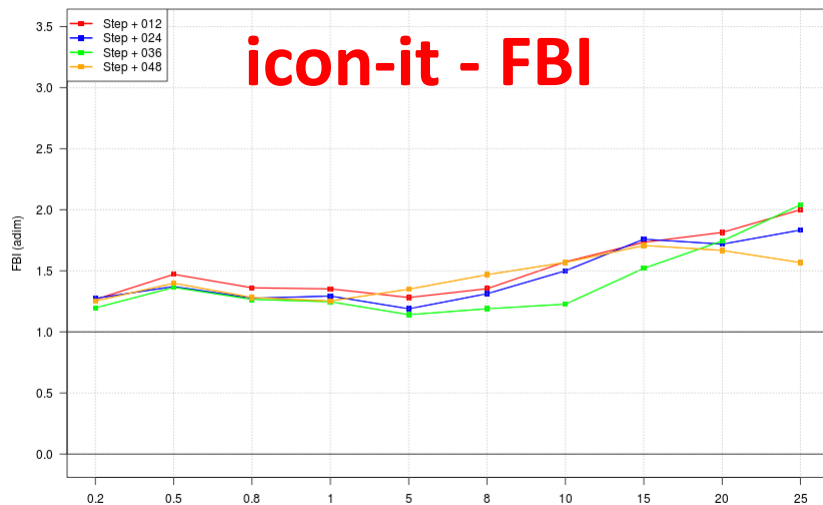
SCORES - WSpeed - SON 2024 - All ITA TEMP stations - step048



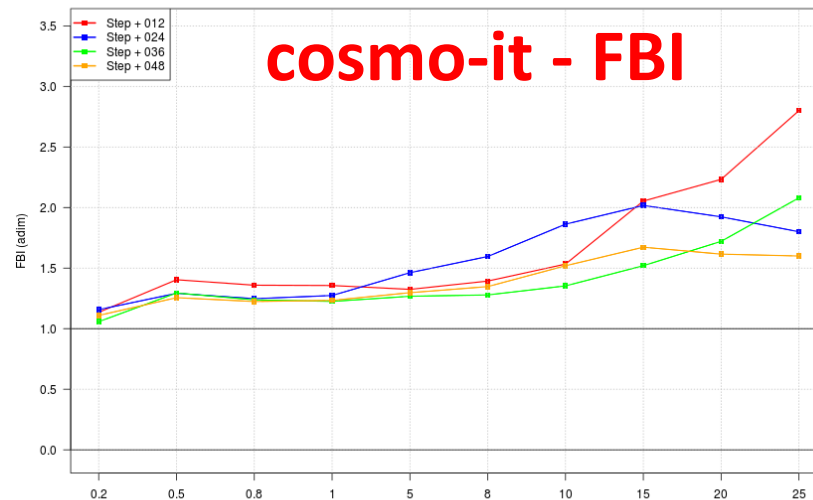
precip06h

ICON-IT verification SON 2024

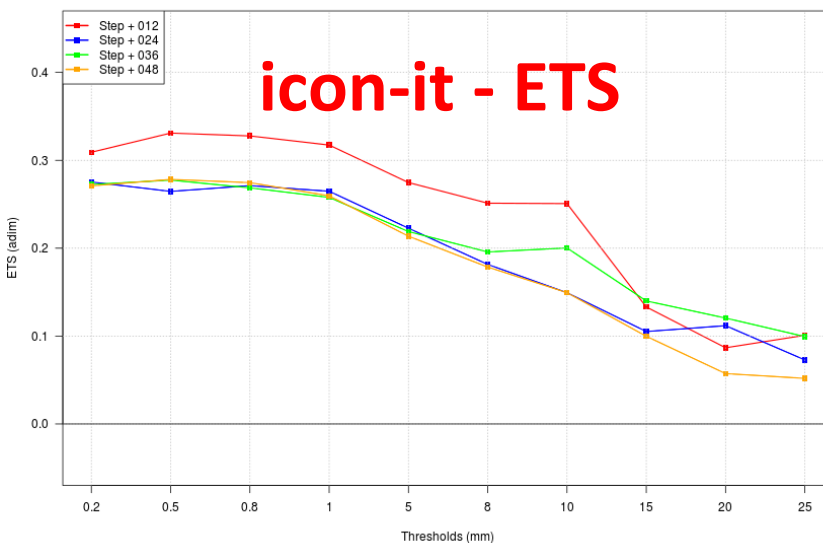
ICON-IT - Prec06h - SON 2024 - All ITA stations



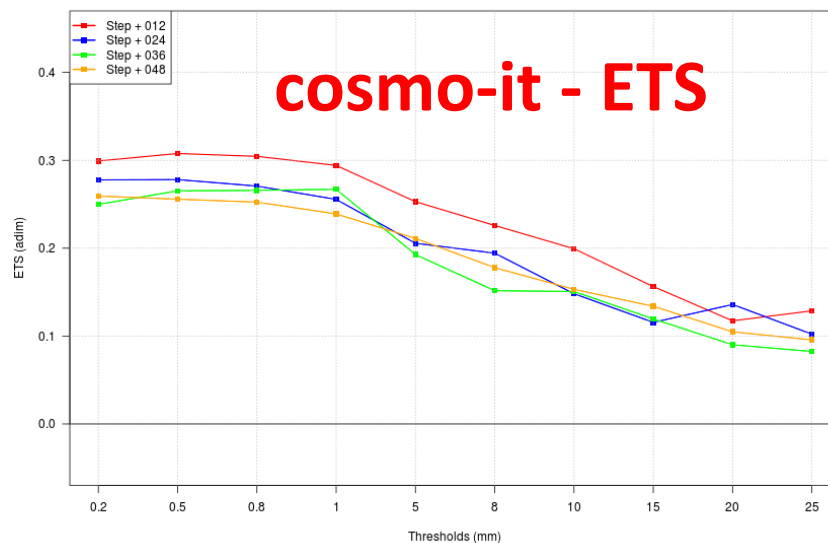
COSMO-IT - Prec06h - SON 2024 - All ITA stations



ICON-IT - Prec06h - SON 2024 - All ITA stations



COSMO-IT - Prec06h - SON 2024 - All ITA stations



Conclusions and remarks

- Overall better performances for icon-it compared with cosmo-it.
- Surface: WS10m negative bias for icon during night hours. Icon-Cosmo: very similar behavior for RMSE.
- Upper: general better results for icon (MAE, RMSE) for medium lower troposphere; underestimation tendency for WS10m.
- Precipitation: overforecasting tendency, growing with thresholds.





Thanks for your attention!

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