# 2019年11月21日

Probabilistic precipitation and temperature downscaling of the Twentieth Century Reanalysis over France

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## Introduction:

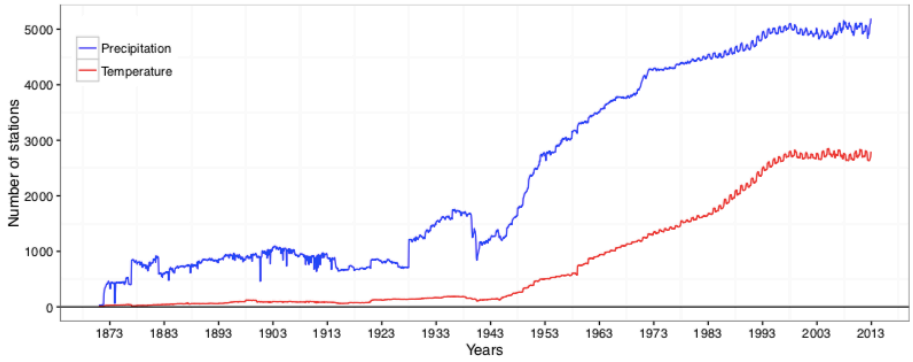


**Figure 1.** Evolution of the monthly averaged number of available precipitation and temperature stations in the Météo-France database (as of March 2015) since 1871.

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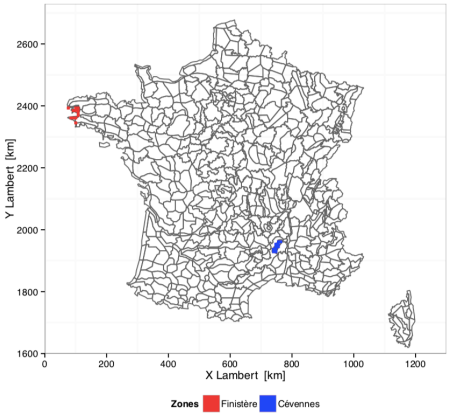
## Methods:

Data:

1. NOAA Twentieth Century Reanalysis: Version 2 of 20CR(Compo et al., 2011), 2.0◦ spatial resolution and 6 hourly temporal resolution from the 1 January 1871 to present.
(temperature at 925 and 600 hPa, geopotential height at 1000 and 500 hPa, vertical velocity at 850 hPa, precipitable water content and relative humidity at 850 hPa)
2. NOAA Extended Reanalysis sea surface temperature version 3b(ERSST, Smith and Reynolds, 2003; Smith et al., 2008), 2.0◦ spatial resolution since the 1 January 1854.
(SST)




3. Safran: a meteorological reanalysis available at an 8 km spatial resolution and at the hourly temporal resolution from the 1 August 1958 to present.
(daily precipitation and temperature)

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## Results: