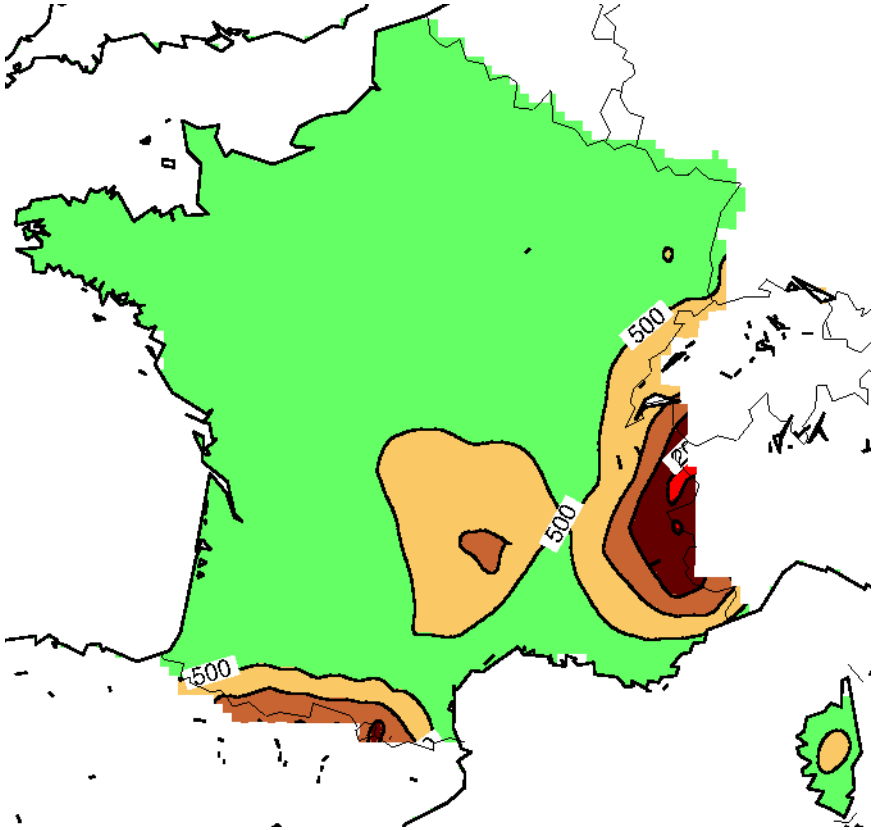
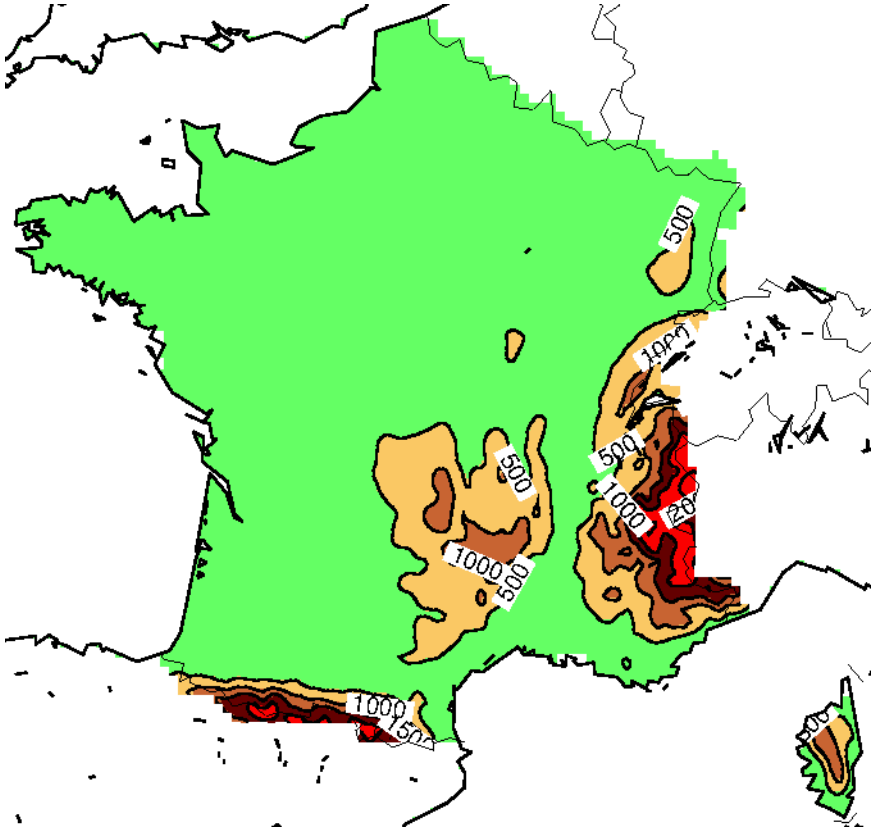
ALADIN 12 km

METEO FRANCE
Toujours un temps d'avance

SCAMPEI vs IMFREX





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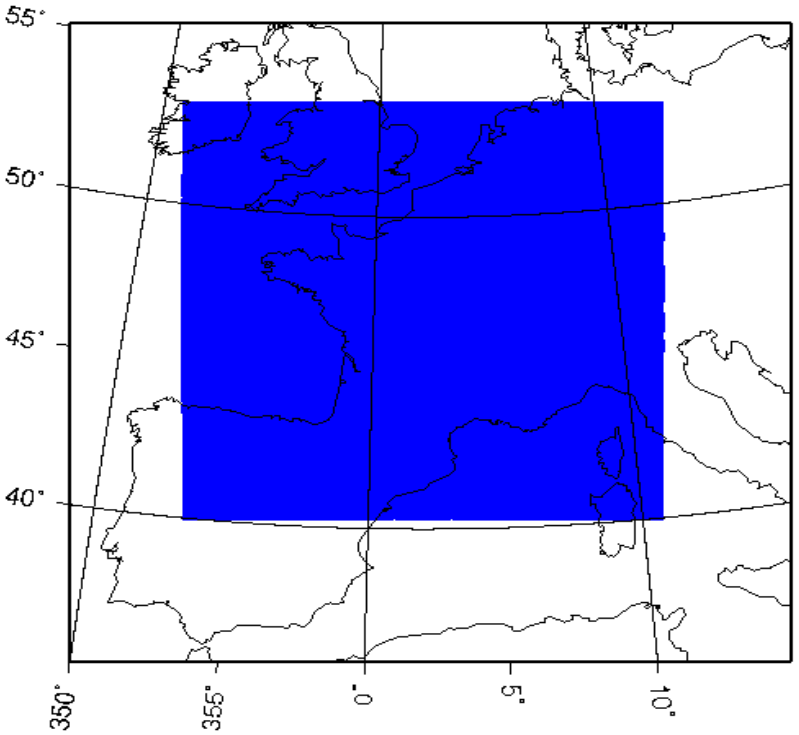
Caractéristiques

- Version 4.6 d'ARPEGE-climat
- Grille 150*150 dont 123*123 libres
- Pas de temps 10 min (stable 20 min)



Simulations

- Pilotage ERA40 : 1960-2007
- Scénario A1B : 1960-2100
- Scénario A2 : 2020-2050 et 2070-2100
- Scénario B1 : 2020-2050 et 2070-2100

Added value of high resolution for ALADIN Regional Climate Model

Déqué and Somot, 2008
Research activities in atmospheric and oceanic modelling

		Temperature				Precipitation			
		DJF	MAM	JJA	SON	DJF	MAM	JJA	SON
LS	ALADIN 56 km	0.81	0.91	0.95	0.89	0.66	0.83	0.85	0.64
	ALADIN 12 km	0.79	0.88	0.94	0.86	0.74	0.90	0.92	0.74
SS	ALADIN 56 km	0.11	0.04	0.07	0.12	0.08	0.05	0.07	0.06
	ALADIN 12 km	0.40	0.04	0.06	0.33	0.50	0.54	0.47	0.52

Table 1: Spatial correlation over France for two versions of ALADIN versus SAFRAN analyses for seasonal mean temperature (elevation effects removed) and precipitation. Correlation is calculated separately for large-scale (LS, above 56 km) and small scale (SS, between 12 km and 56 km).

Analysis of heavy precipitation for France using high resolution Aladin RCM simulations

Michel Déqué and Samuel Somot, 2009
Quarterly Journal of Hungarian Meteorological Service

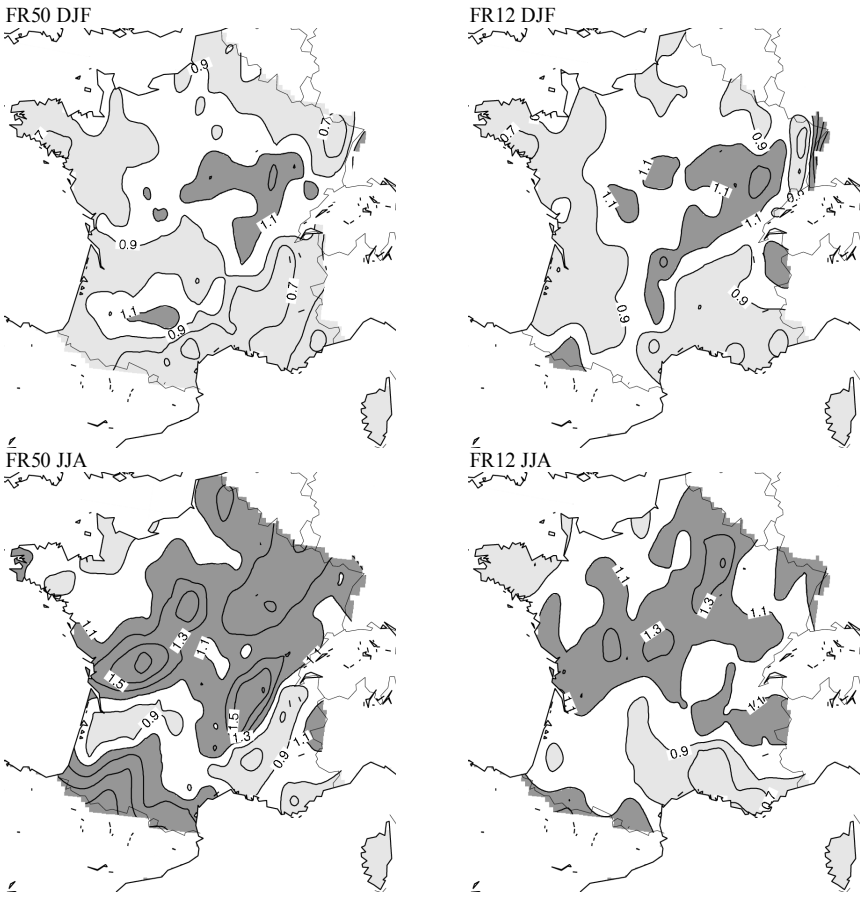


Figure 4: Ratio of the 99.9% quantiles FRA50 over Safran (left) and FRA12 over Safran (right) in winter (top) and summer (bottom). The contour interval is 0.2, values over 1.1 are dense shaded and values below 0.9 are light shaded.

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