



Météo-France

Seasonal Forecasting

Background

- **Actor of Eurosip (system 4) + WMO GPC/RCC**
- **Involved in SPECS (4 WPs)**
- **To be involved in Copernicus Seasonal Forecast (POC and Pre-Operational)**
- **System 4 to System 5 (run in parallel since May 2015)**

What is new in system 5 ?

- T255 versus T127
- 91 vertical levels versus 31 (+ prognostic ozone and QBO parameterization)
- Sea-ice model (Gelato)
- Stochastic perturbations versus lag-average
- New soil scheme (Surfex 7)
- Computation cost x 20

Surface temperature scores

	DJF S4	DJF S5	MAM S4	MAM S5	JJA S4	JJA S5	SON S4	SON S5
90N- 30N	0.28	0.32	0.36	0.39	0.31	0.32	0.35	0.41
30N- 30S	0.52	0.54	0.49	0.50	0.52	0.53	0.56	0.55
30S- 90S	0.32	0.29	0.33	0.33	0.23	0.24	0.29	0.27

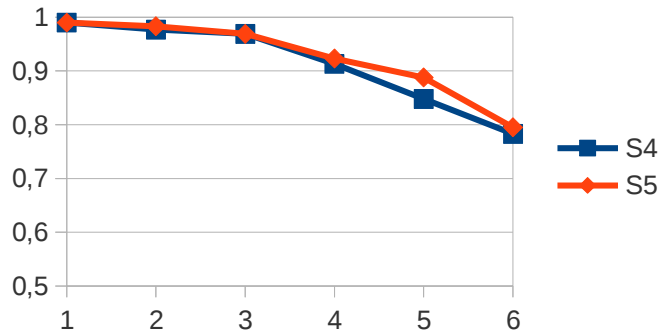
ACC month 2-4, 60 members, 34 years

Precipitation scores

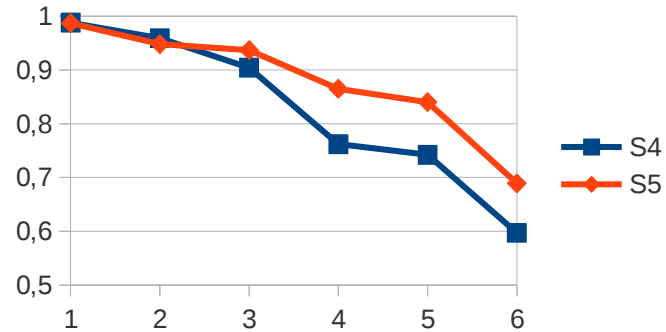
	DJF S4	DJF S5	MAM S4	MAM S5	JJA S4	JJA S5	SON S4	SON S5
90N- 30N	.21	.21	.17	.18	.06	.08	.09	.10
30N- 30S	.57	.56	.47	.50	.46	.43	.51	.50
30S- 90S	.18	.21	.18	.20	.16	.18	.23	.23

ACC month 2-4, 60 members, 34 years

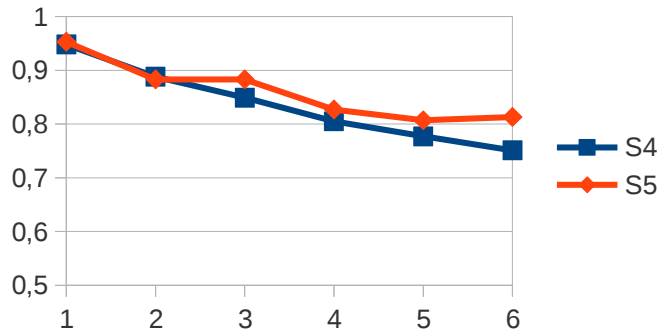
ENSO scores (Nino3.4 correlation)



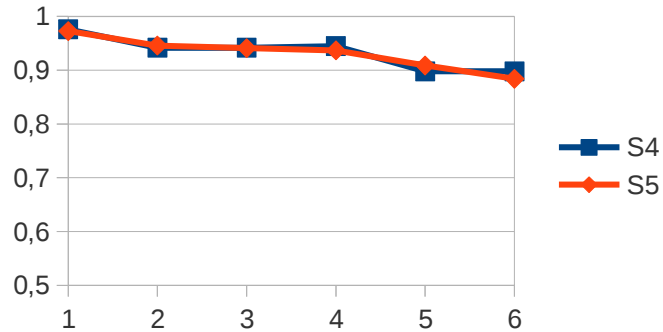
Forecast lag (month) 1st Nov. start



Forecast lag (month) 1st Feb. start

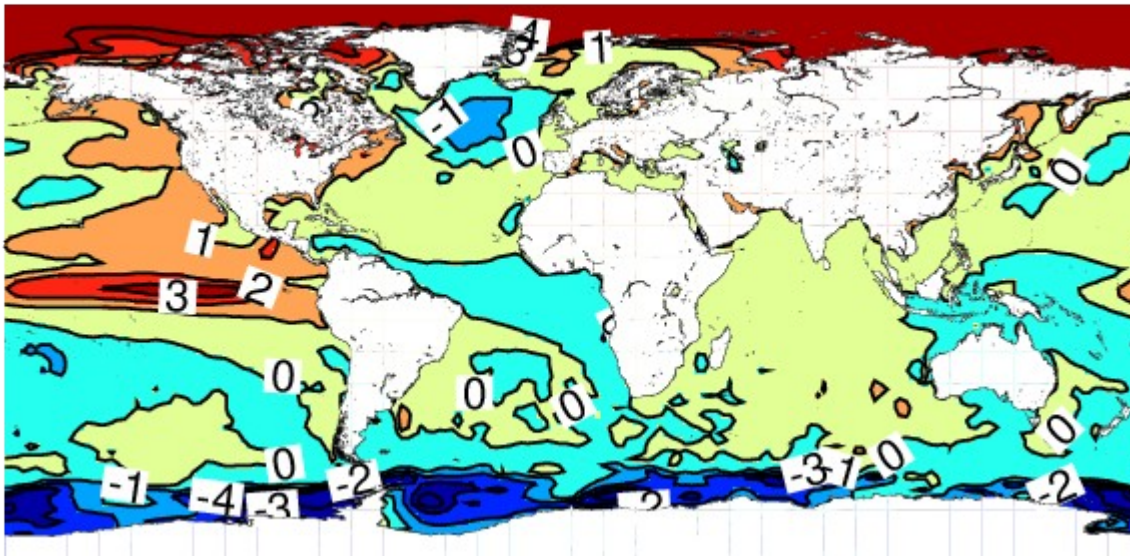


Forecast lag (month) 1st May start



Forecast lag (month) 1st Aug. start

Next ENSO event



SON forecast from system 5 (start 1st Sept.)

2nd largest warming forecast since 1979 after 1997