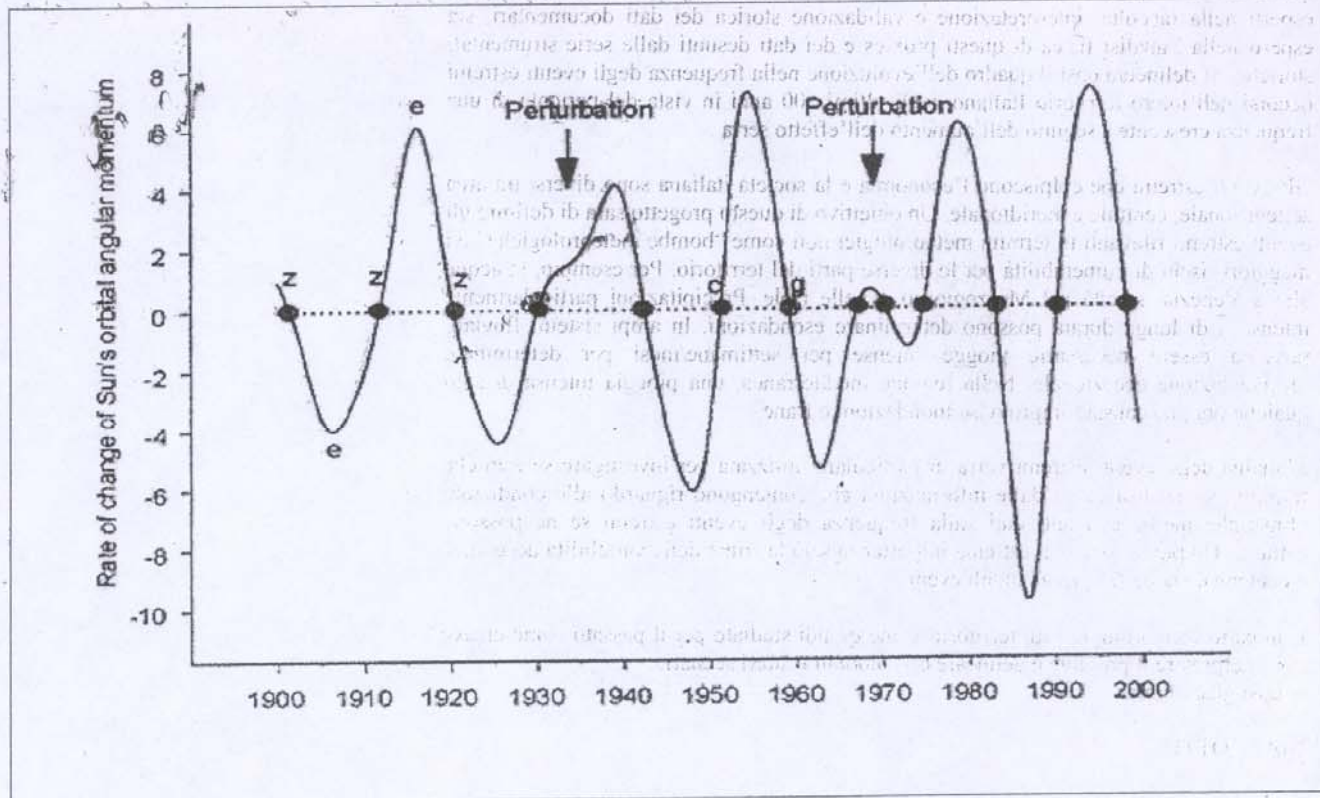




Analisi delle tendenze climatiche indotte da cambiamenti globali: ripercussioni sull'area veneziana

Prof. Tomasino

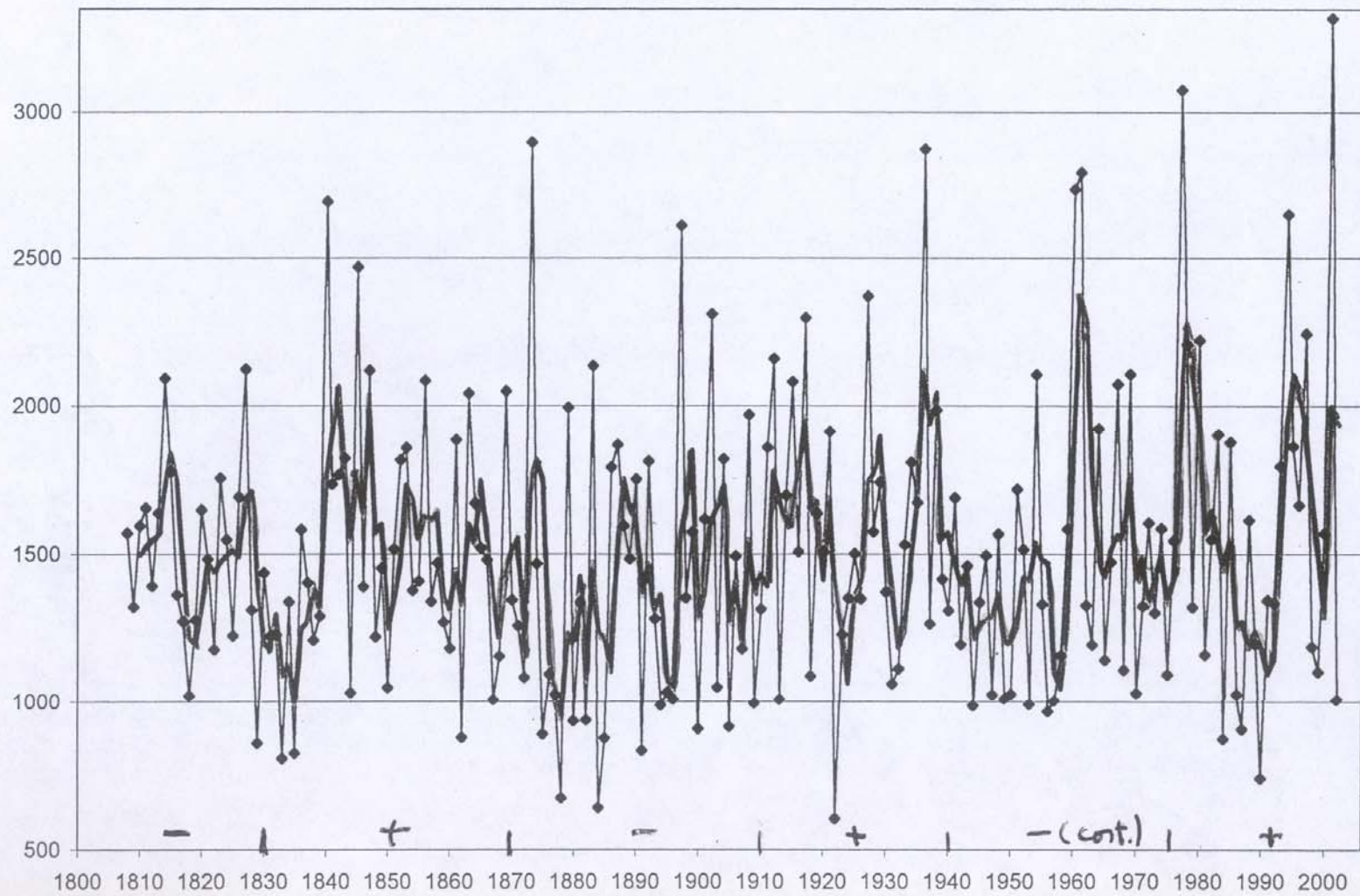
Zardi@ing.unitn.it



Solar torque trend with indication of characteristic points (from Landscheidt, 2001)

PREVISIONE DEGLI ESTREMI IDROLOGICI
CON L'utilizzo dei cicli solari

Portate medie semestrale invernale



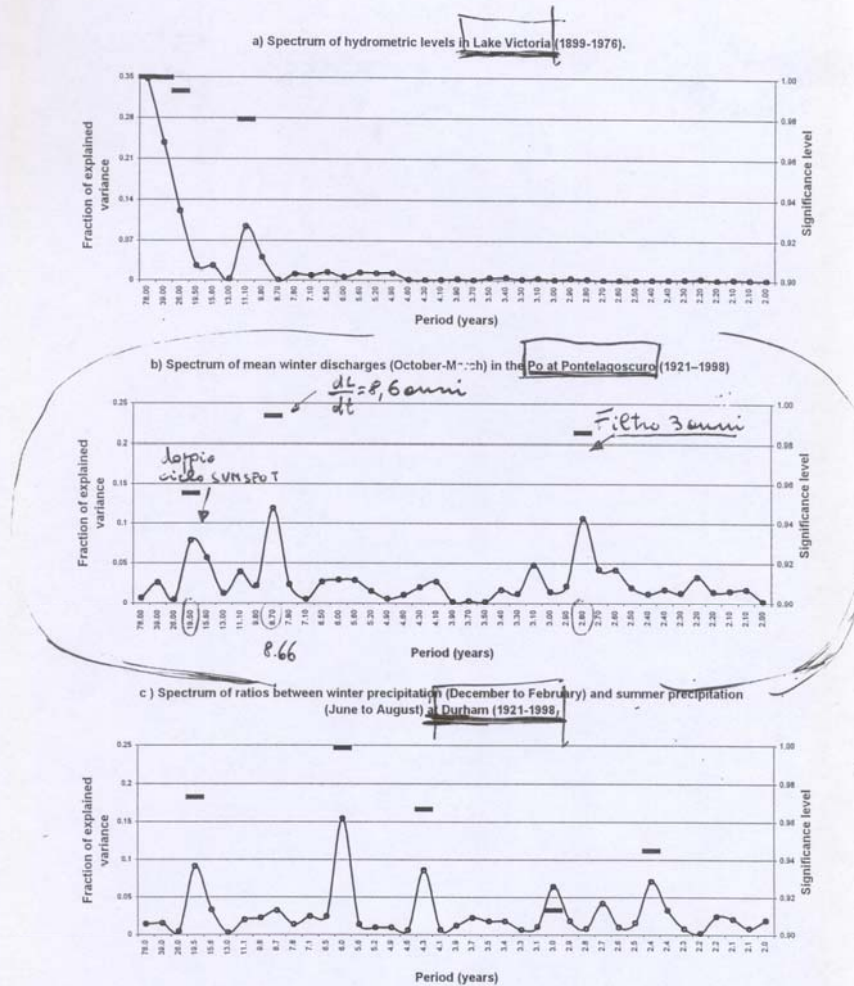
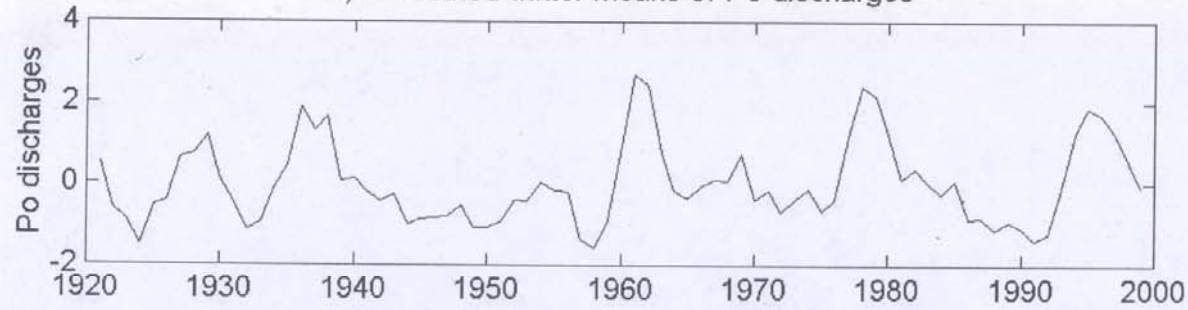
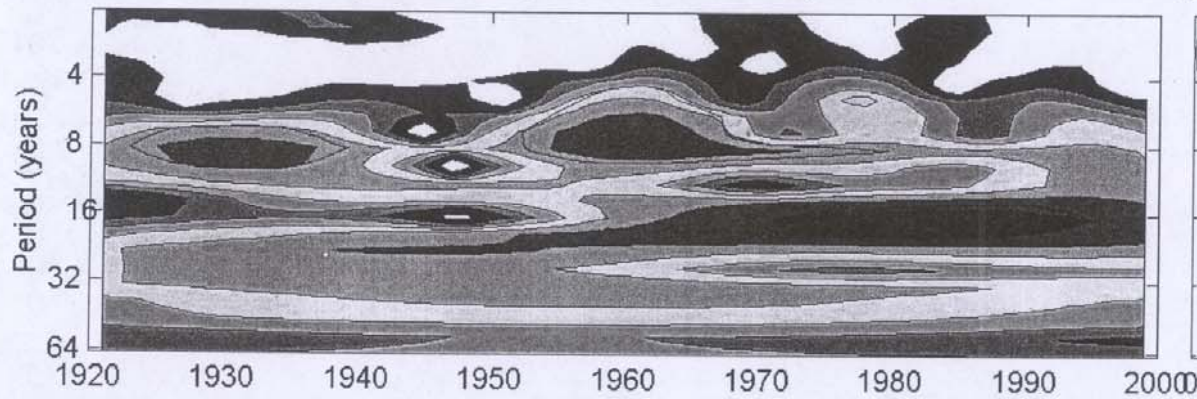


Fig. 8 -Comparison between the spectra of three different hydrological data sets referring to different latitudes: a.) hydrometric levels in Lake Victoria (Equator), b.) mean winter discharges (October - March) in the River Po at Pontelagoscuro (45° N), c.) ratios between mean winter rainfall (December - February) and mean summer rainfall (June-August) for the Durham station (UK) (55° N). Spectral analyses were conducted on the series of annual values, considering a 78-year period. In the case of Lake Victoria it was not possible to consider the period from 1921-1998, since data was not available for the entire period. Instead, we limited the analysis to the period between 1896 and 1973 for which lake level measurements are available and there is also an important component with an 11-year period.

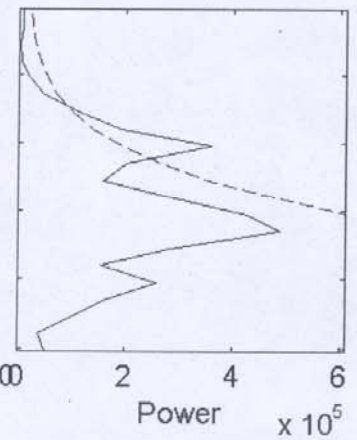
a) Smoothed winter means of Po discharges



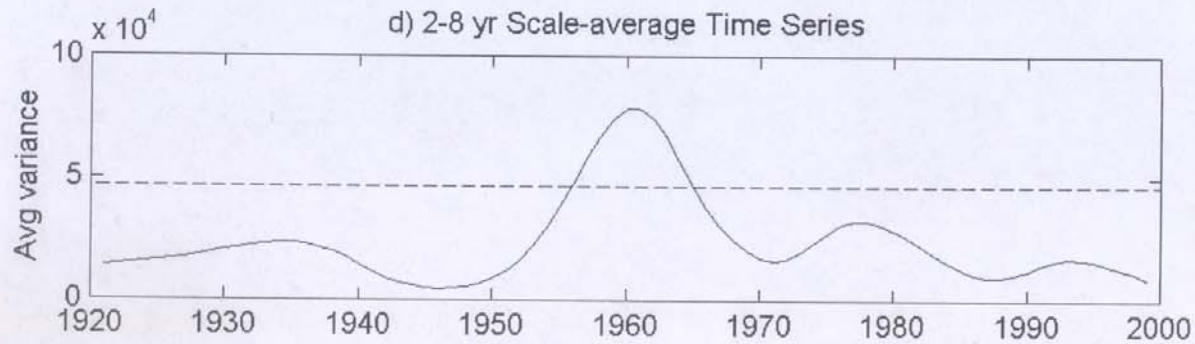
b) Po discharges Wavelet Power Spectrum

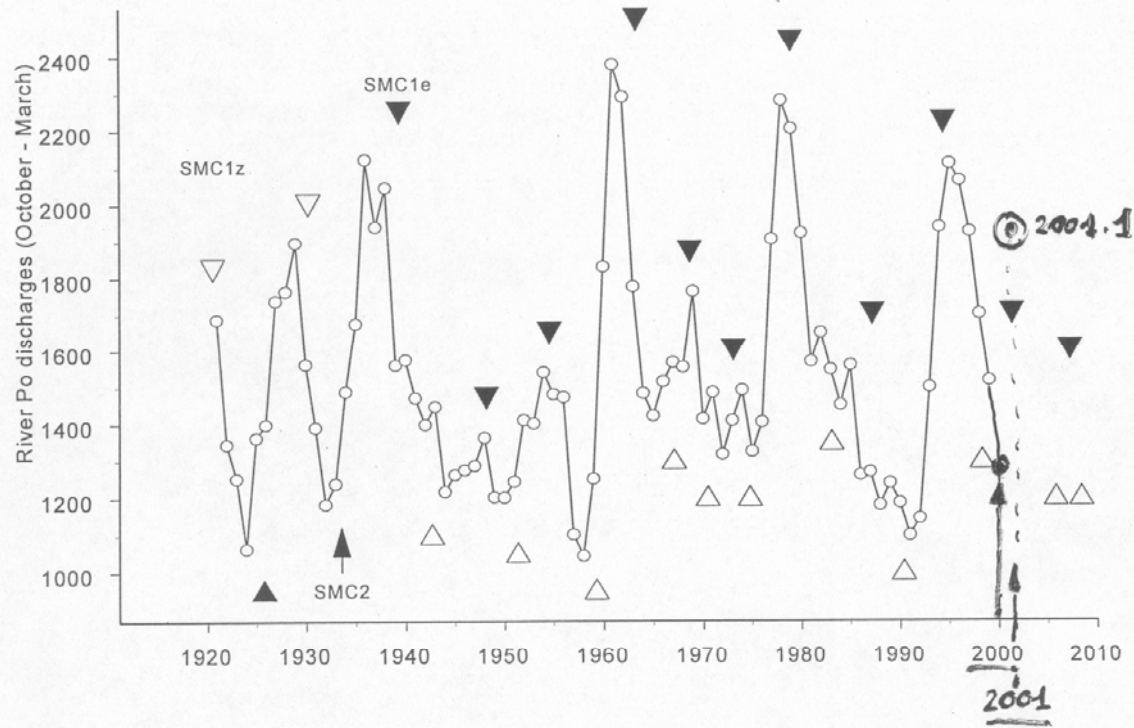


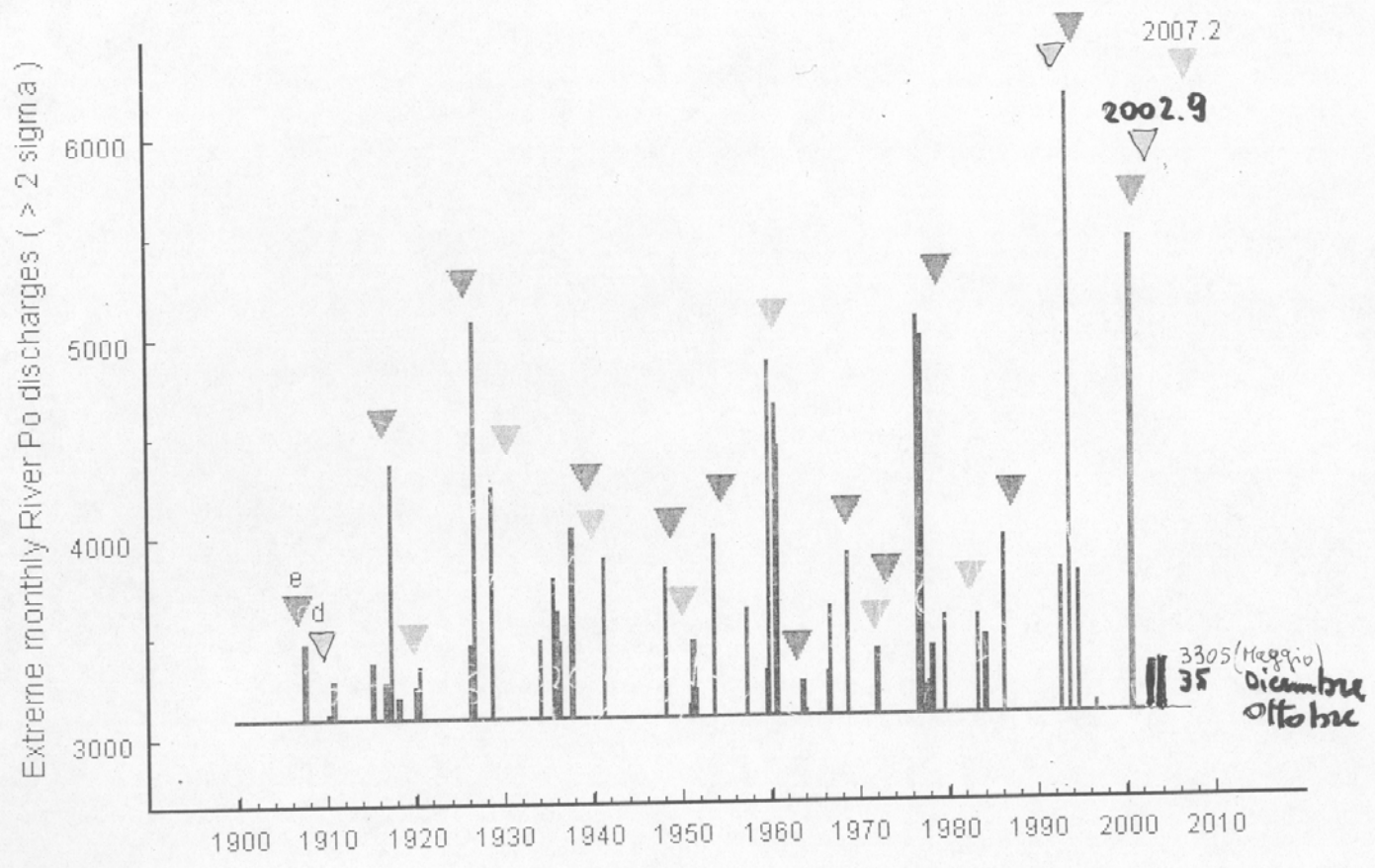
c) Global Wavelet Spectrum



d) 2-8 yr Scale-average Time Series





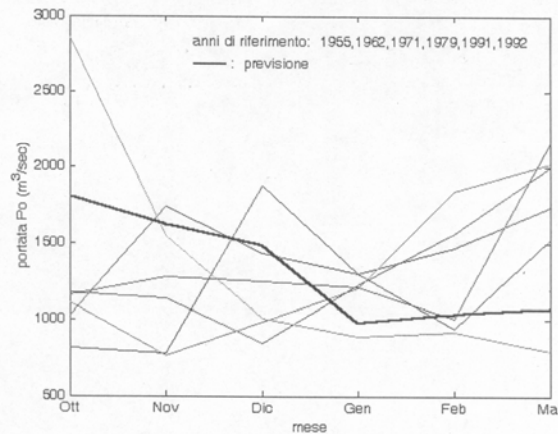


PREVISIONE STAGIONALE

(15 ottobre 2002) *inviati ad utilizzatori indipendente.*

	Ott	Nov	Dic	Gen	Feb	Mar	Semestre
media periodo storico	1832	1918	1438	1251	1279	1537	1543
previsione 2002-2003	1803	1622	1487	975	1040	1071	1333
Valore misurato	1443	3413	3589	1977	1184	1042(*)	2108(*)
Scostamento previsto in segno rispetto al valore medio del periodo	-	-	+	-	-	-	-
Scostamento misurato in segno rispetto al valore medio del periodo	-	+	-	+	-	-	+
Errore percentuale sulle previsioni (%)	+25	-51	-58	-51	-12	+3(*)	-37(*)

(*) Dato riferito ai primi 20 giorni del mese di Marzo



• SENZA CORREZIONI (MESE PER MESE)

previsto: semestre ottobre 2002 - marzo 2003
- 37%

tendenze mensili (+ o - media periodo storico)

A corretti su 6 mesi

Periodo difficile perchè per 2 mesi le medie hanno superato 26

(vanno classificati come eccezionali)