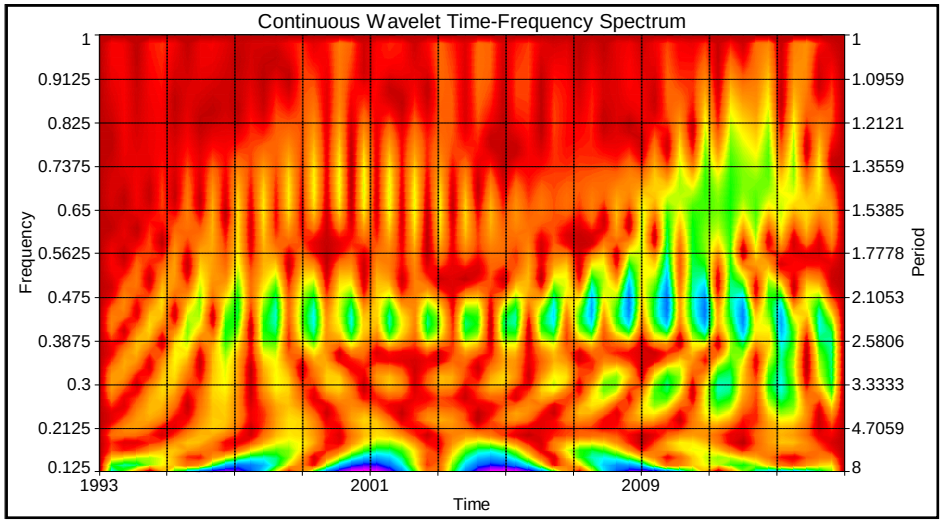


Figure 1: Continuous Wavelet Time-Frequency Spectrum （Morlet) of Detrended South China Sea SLA Anomalies.

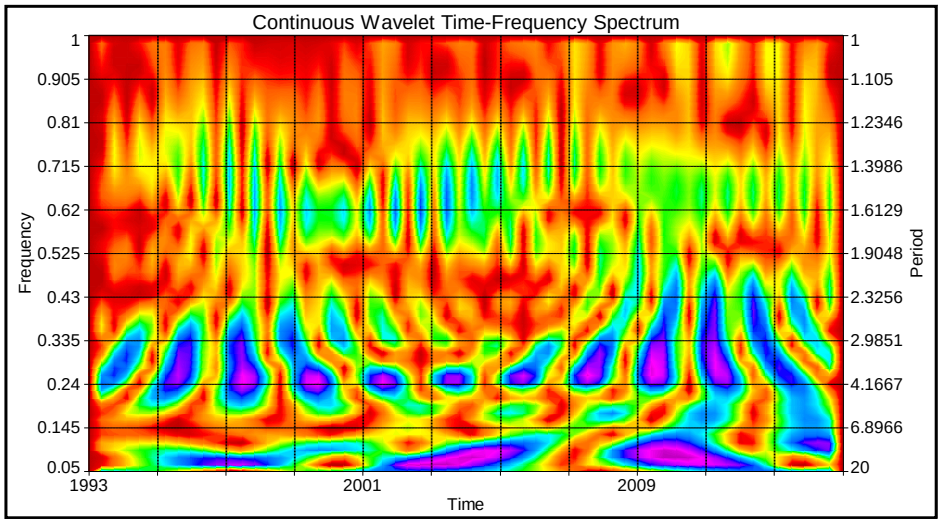


Figure 2 : Continuous Wavelet Time-Frequency Spectrum （Morlet) of Detrended Pacific Ocean (Exclude China Seas) Sea SLA Anomalies.

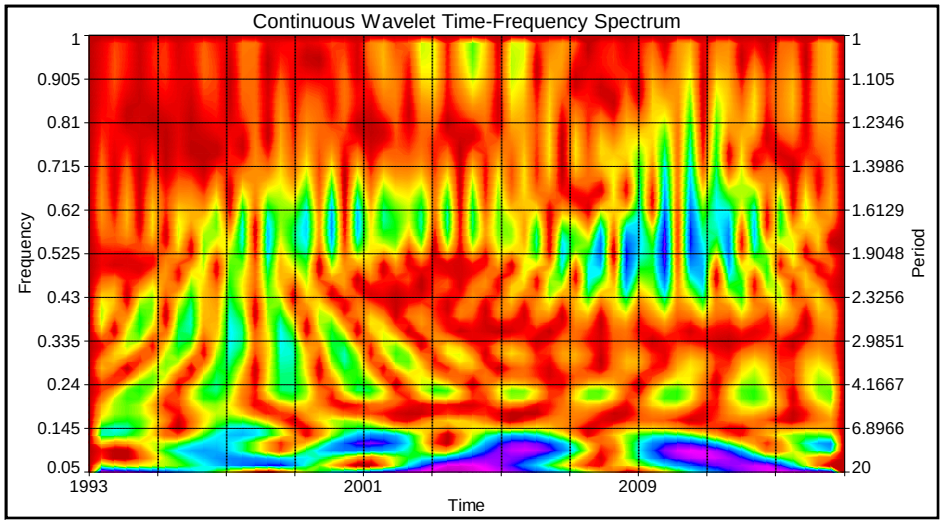


Figure 3 : Continuous Wavelet Time-Frequency Spectrum （Morlet) of Detrended Indian Ocean Sea SLA Anomalies.

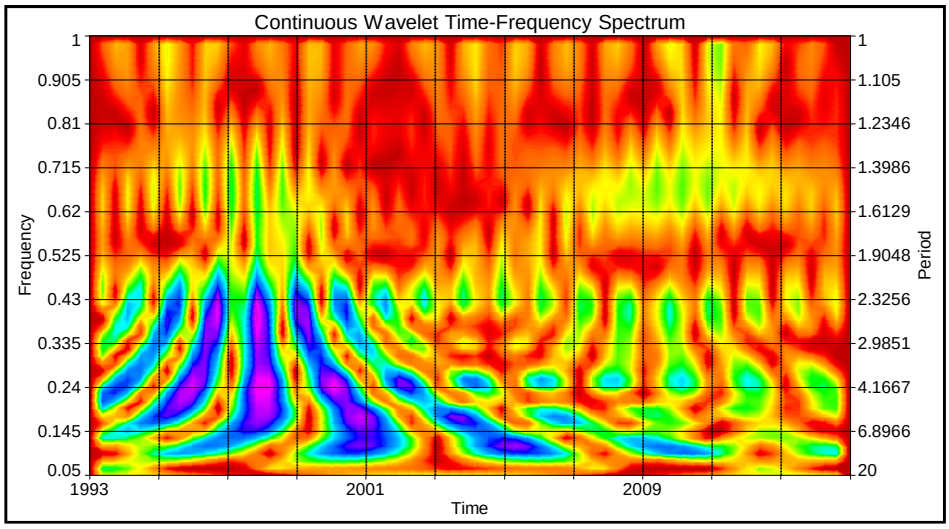


Figure 4 : ContiNuous Wavelet Time-Frequency Spectrum （Morlet) of Detrended Pacific Ocean (Exclude China Seas) Upper-Layer Zonal Volume Centroid.

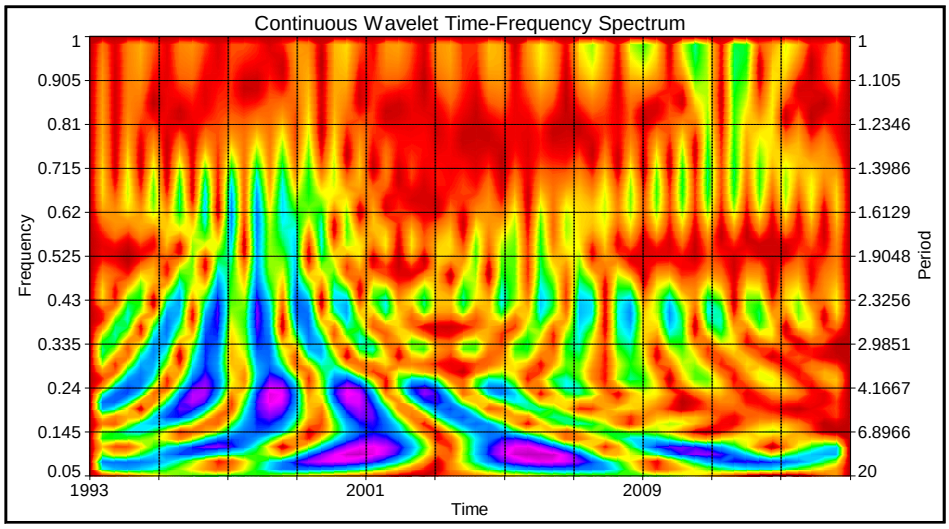
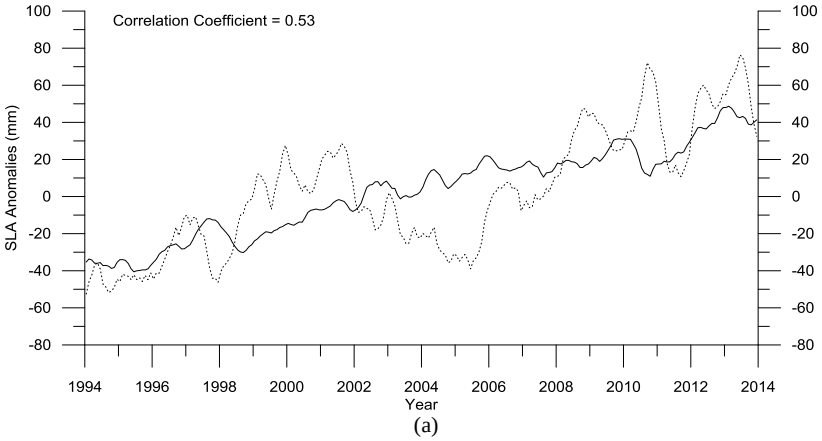


Figure 5 : Continuous Wavelet Time-Frequency Spectrum （Morlet) of Detrended Indian Ocean (Exclude China Seas) Upper-Layer Zonal Volume Centroid.

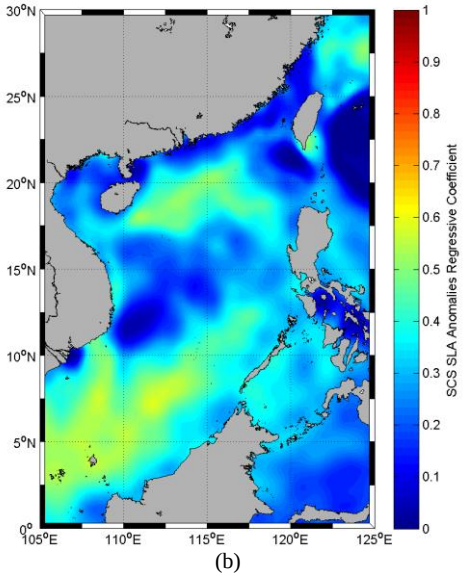
Table 1: Regression parameters of all regressive processes

$$Y = \sum_{i=0}^{n} \mathrm{B(i)} * \mathrm{X(i)} \quad (\mathrm{n} = 1,2,4)$$

NO.	Coefficient	Variable	Parameter Name	Coefficient B
1	0.53	X(0)	Constant	0.42
		X(1)	5MS Pacific Ocean SLA Anomalies Time Series	1.44±0.17
2	0.70	X(0)	Constant	0.44
		X(1)	5MS Indian Ocean SLA Anomalies Time Series	1.26±0.10
3	0.43	X(0)	Constant	0.00053
		X(1)	5MS Pacific Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	-260.37±38.23
4	0.50	X(0)	Constant	-0.00058
		X(1)	5MS Indian Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	735.93±95.83
5	0.71	X(0)	Constant	0.54
		X(1)	5MS Pacific Ocean SLA Anomalies Time Series	-0.33±0.32
		X(2)	5MS Indian Ocean SLA Anomalies Time Series	1.49±0.24
6	0.52	X(0)	Constant	-0.00023
		X(1)	5MS Pacific Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	-91.97±62.15
		X(2)	5MS Indian Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	543.34±165.04
7	0.70	X(0)	Constant	0.00036
		X(1)	5MS Pacific Ocean SLA Anomalies Time Series	1.13±0.15
		X(2)	5MS Pacific Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	-174.73±30.03
8	0.85	X(0)	Constant	-0.00035
		X(1)	5MS Indian Ocean SLA Anomalies Time Series	0.99±0.08
		X(2)	5MS Indian Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	448.46±57.36
9	0.86	X(0)	Constant	-0.00050
		X(1)	5MS Pacific Ocean SLA Anomalies Time Series	0.037±0.23
		X(2)	5MS Pacific Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	0.99±0.19
		X(3)	5MS Indian Ocean SLA Anomalies Time Series	41.64±36.26
		X(4)	5MS Indian Ocean Monthly Upper-Layer Zonal Volume Centroid Time Series	532.24±90.72

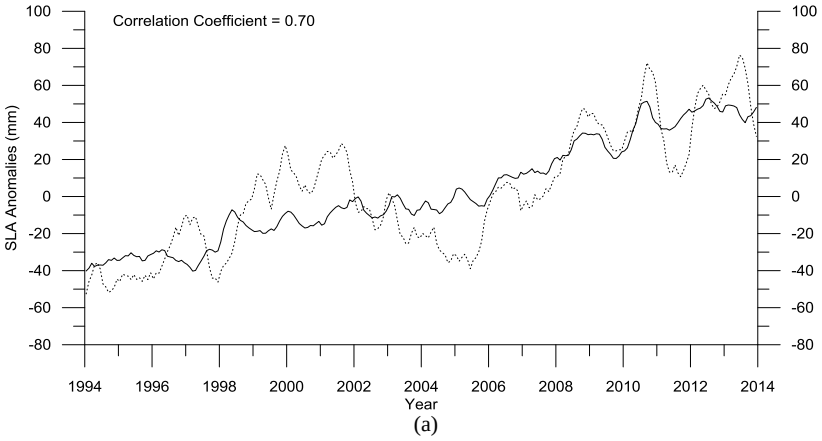


(a)

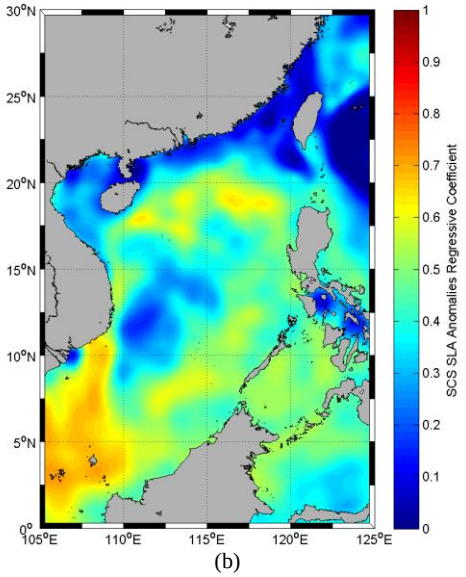


(b)

Figure 6-1 : (a)Comparison between the No.1 (in table 1) Regression resulte (solid line) and the Five-month Smoothing (5MS) SCS SLA Anomalies time series(dash line), (b)Coefficient map between the No.1 regression resulte and the 5MS SCS grid SLA Anomalies time series.

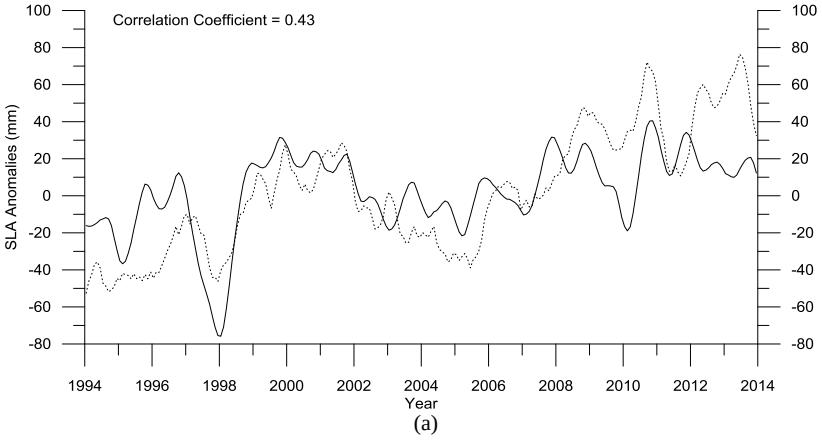


(a)

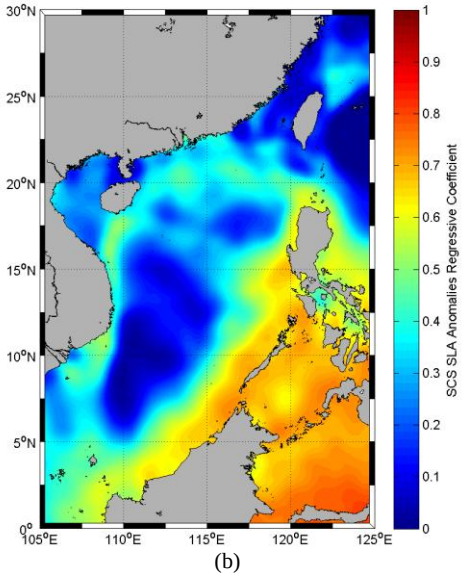


(b)

Figure 6-2 : (a)Comparison between the No.2 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.2 regression resulte and the 5MS SCS grid SLA Anomalies time series.

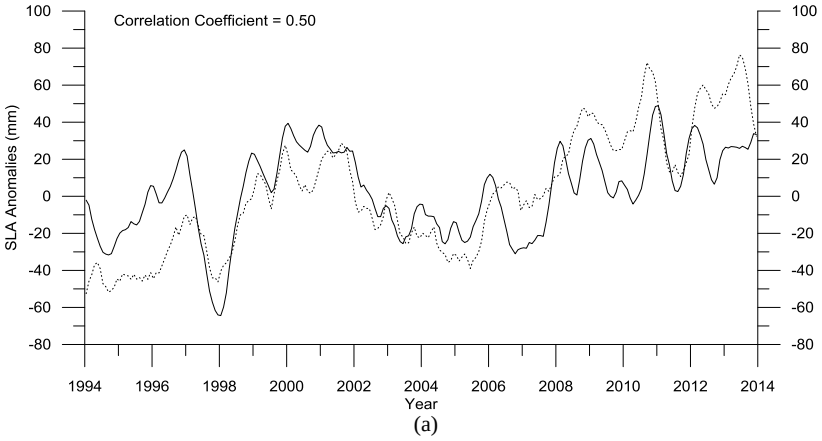


(a)

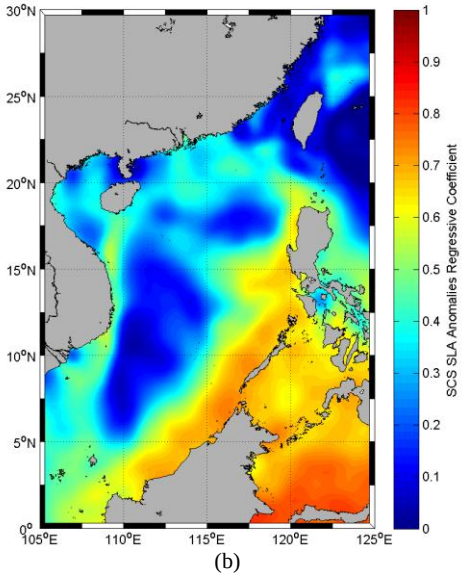


(b)

Figure 6-3 : (a)Comparison between the No.3 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.3 regression resulte and the 5MS SCS grid SLA Anomalies time series.

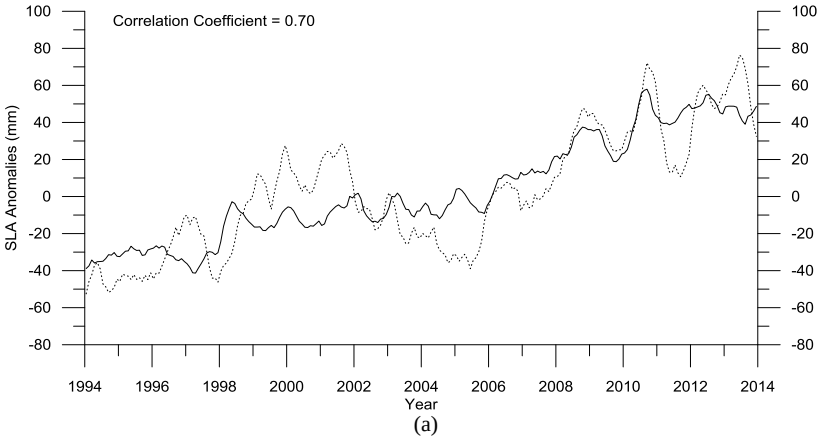


(a)

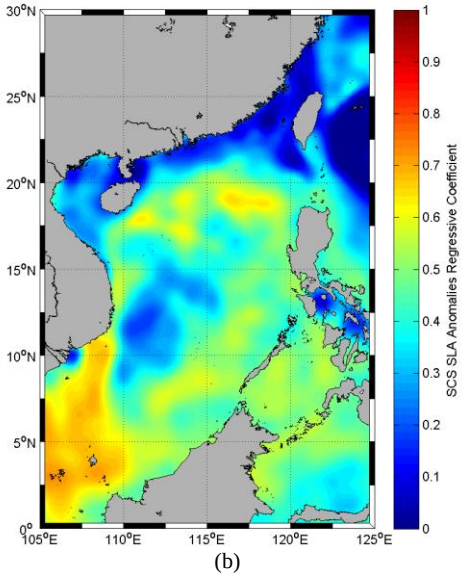


(b)

Figure 6-4 : (a)Comparison between the No.4 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.4 regression resulte and the 5MS SCS grid SLA Anomalies time series.

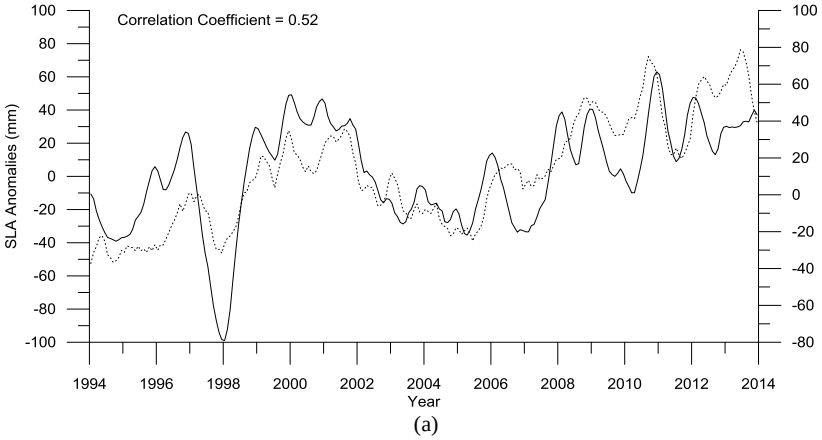


(a)

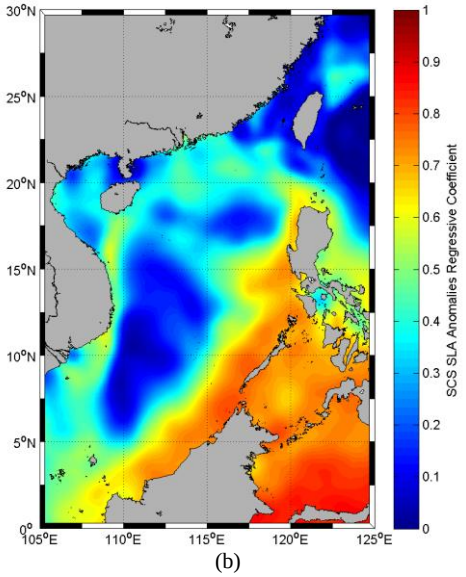


(b)

Figure 6-5 : (a)Comparison between the No.5 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.5 regression resulte and the 5MS SCS grid SLA Anomalies time series.

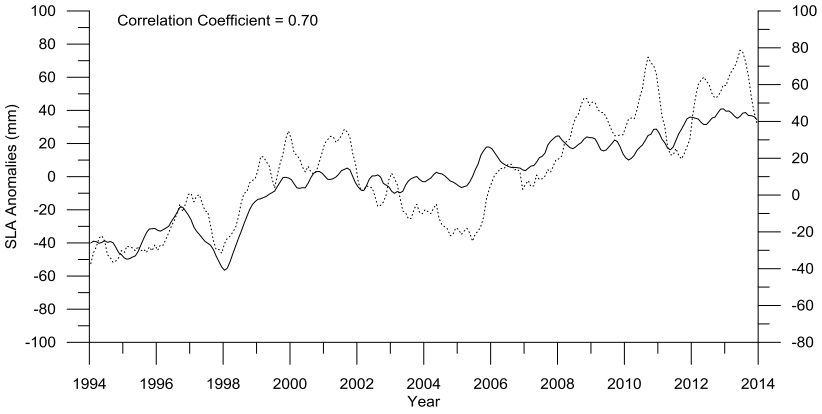


(a)

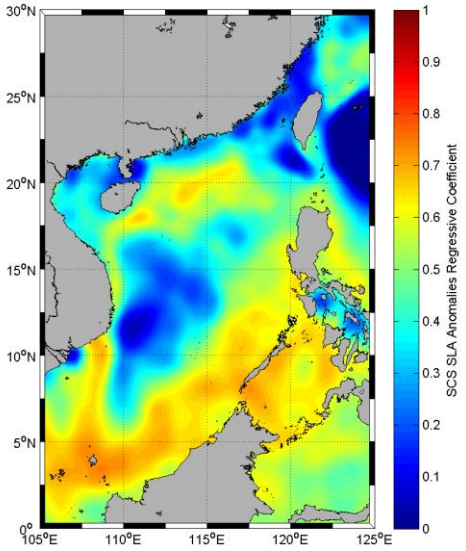


(b)

Figure 6-6 : (a)Comparison between the No.6 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.6 regression resulte and the 5MS SCS grid SLA Anomalies time series.

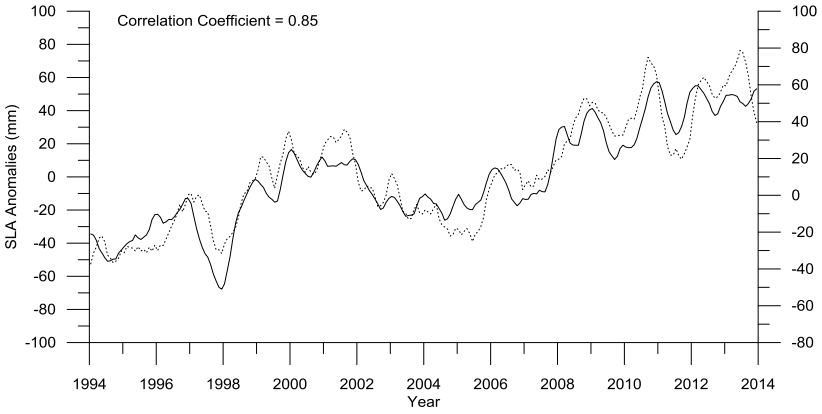


(a)

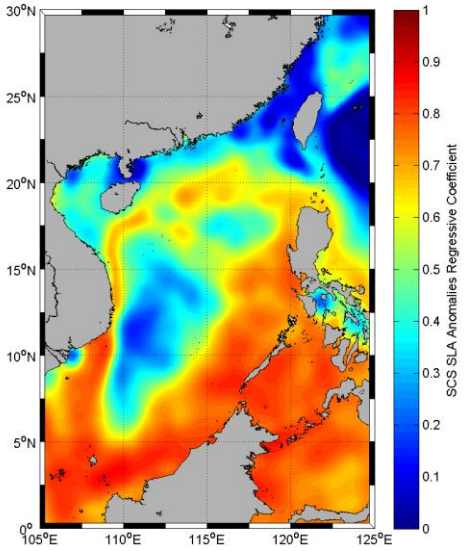


(b)

Figure 6-7 : (a)Comparison between the No.7 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.7 regression resulte and the 5MS SCS grid SLA Anomalies time series.

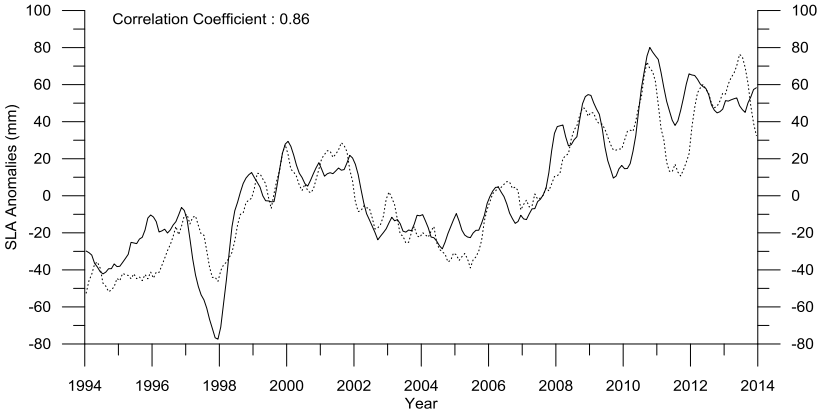


(a)

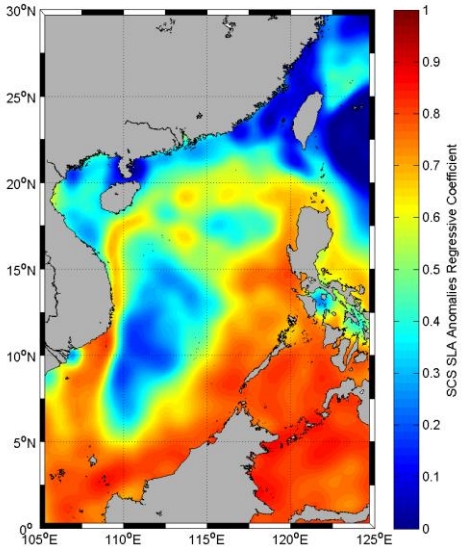


(b)

Figure 6-8 : (a)Comparison between the No.8 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.8 regression resulte and the 5MS SCS grid SLA Anomalies time series.



(a)



(b)

Figure 6-9 : (a)Comparison between the No.9 (in table 1) Regression resulte (solid line) and the 5MS SCS SLA Anomalies time series(dash line),(b)Coefficient map between the No.9 regression resulte and the 5MS SCS grid SLA Anomalies time series.