

The background features a dark blue gradient with faint, light blue geometric patterns. These include several concentric circles of varying sizes, some with dashed lines, and a large circular scale on the left side with degree markings from 140 to 260. Arrows indicate a clockwise direction of movement.

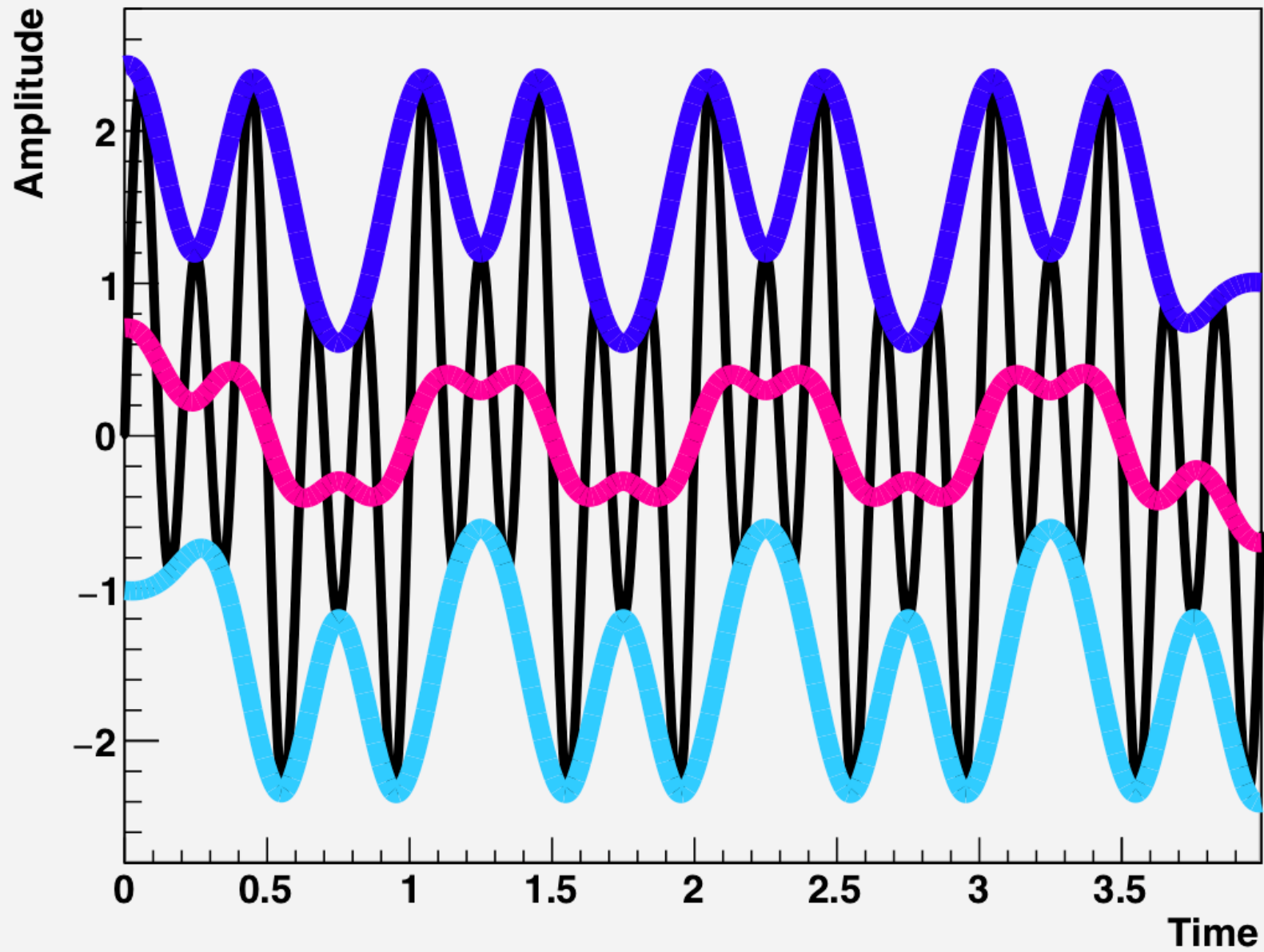
IMPLEMENTAÇÃO DA DECOMPOSIÇÃO EMPÍRICA MODAL E EXEMPLOS DE APLICAÇÃO

INÊS FERREIRA E FILIPA VALENTE

Processo de Mirroring



Original Signal | Envelopes | Mean



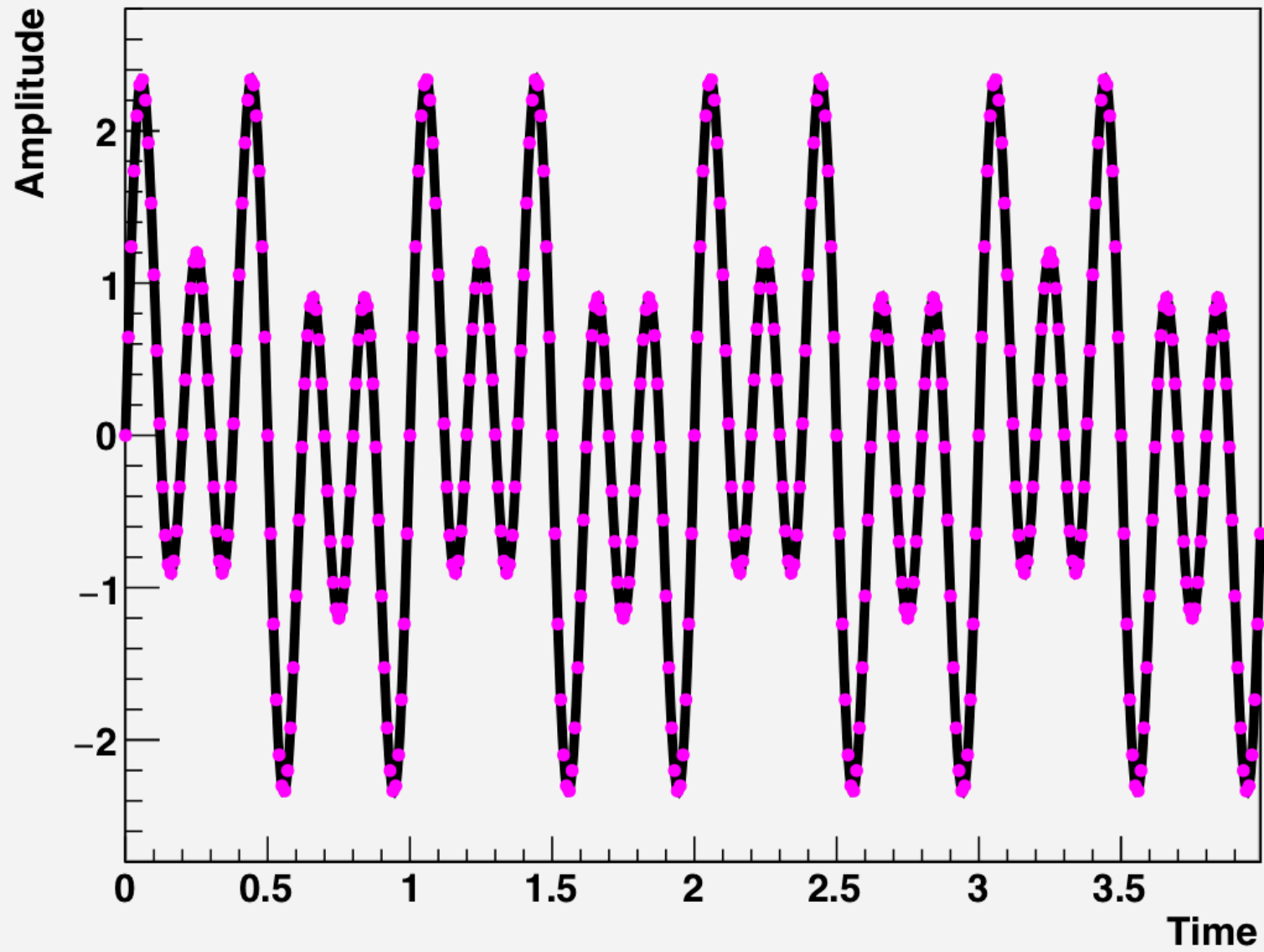
Exemplo de Implementação 1

Soma de Senos

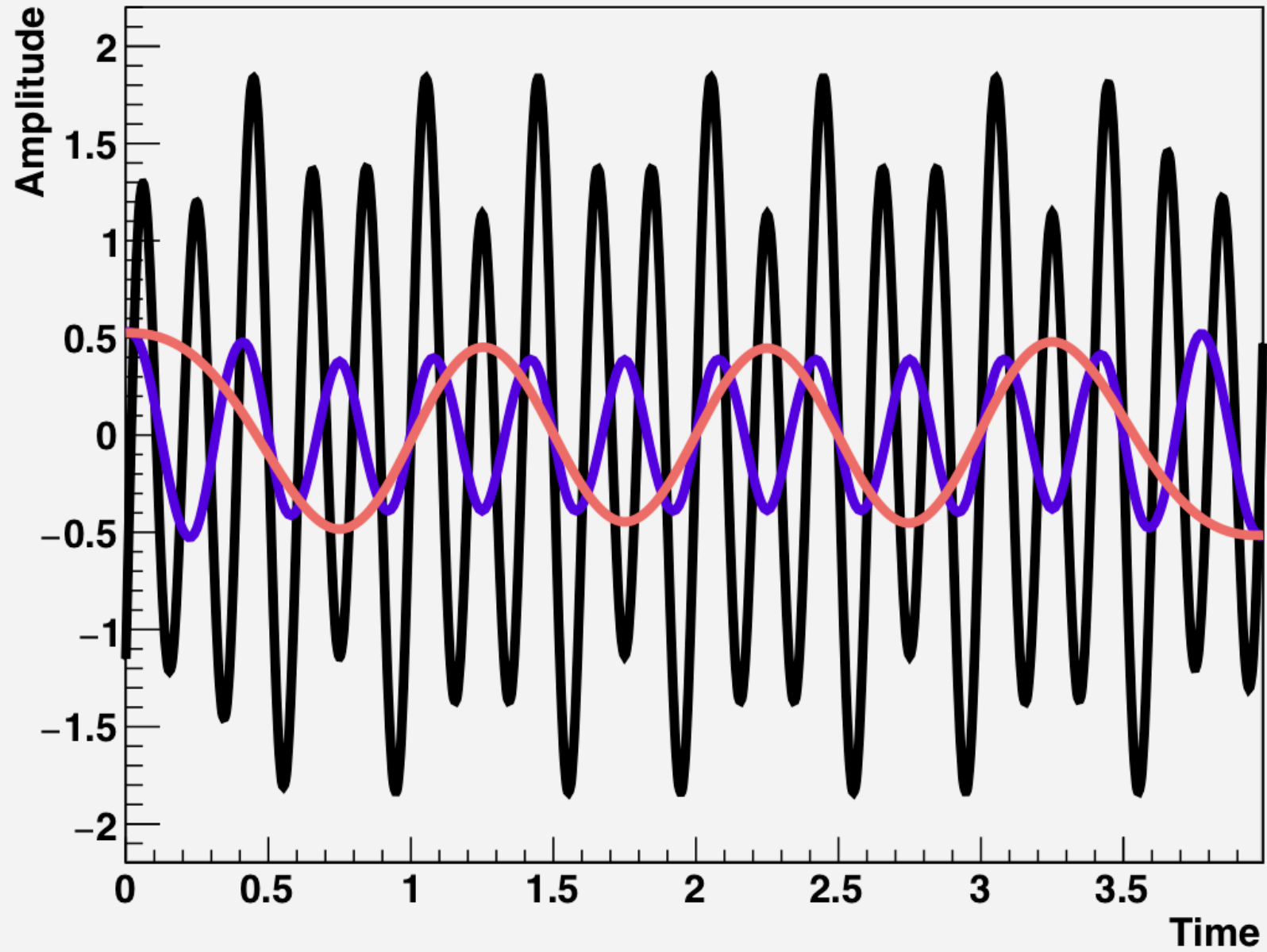
$$s(t) = 0.5 \sin(1 \times 2\pi t) + 0.8 \sin(3 \times 2\pi t) + 1.5 \sin(5 \times 2\pi t)$$

IMF	Nº de Iterações	Coefficiente de Correlação	Amplitude média	Frequência média	Período médio
1	4	0.926	1.48	5.06	0.20
2	2	0.462	0.42	2.91	0.34
3	1	0.325	0.47	0.95	1.05

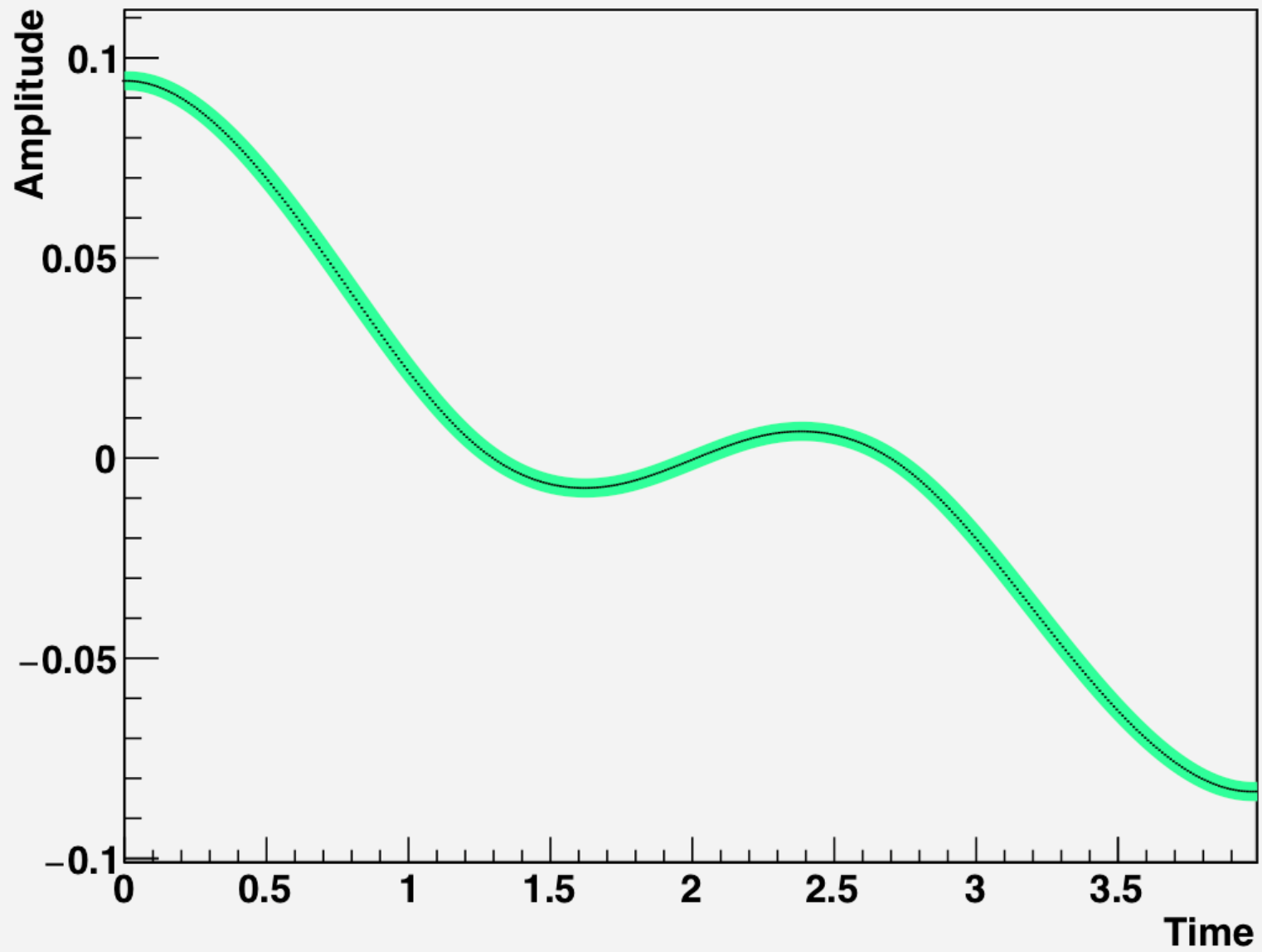
Original Signal



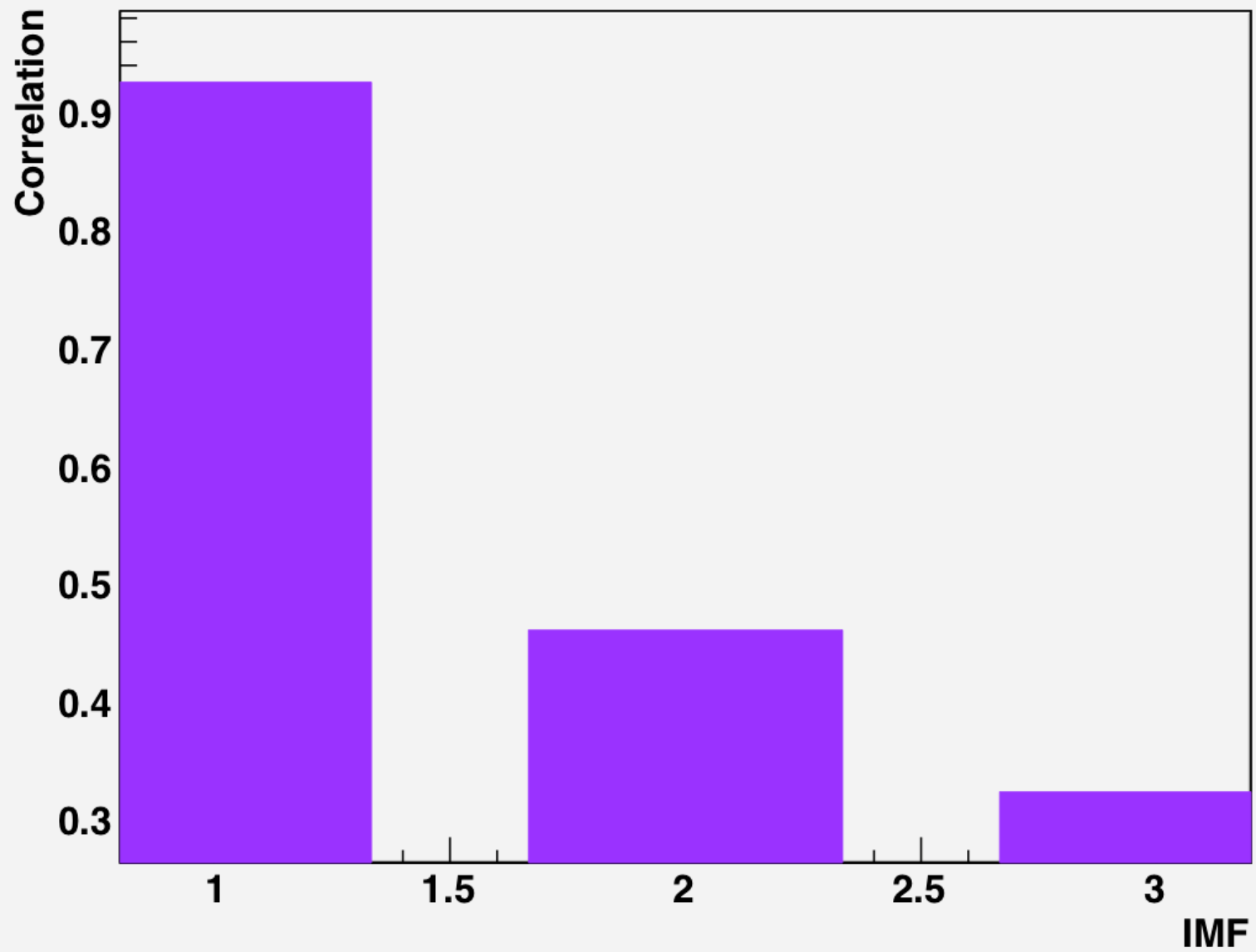
All the IMFs



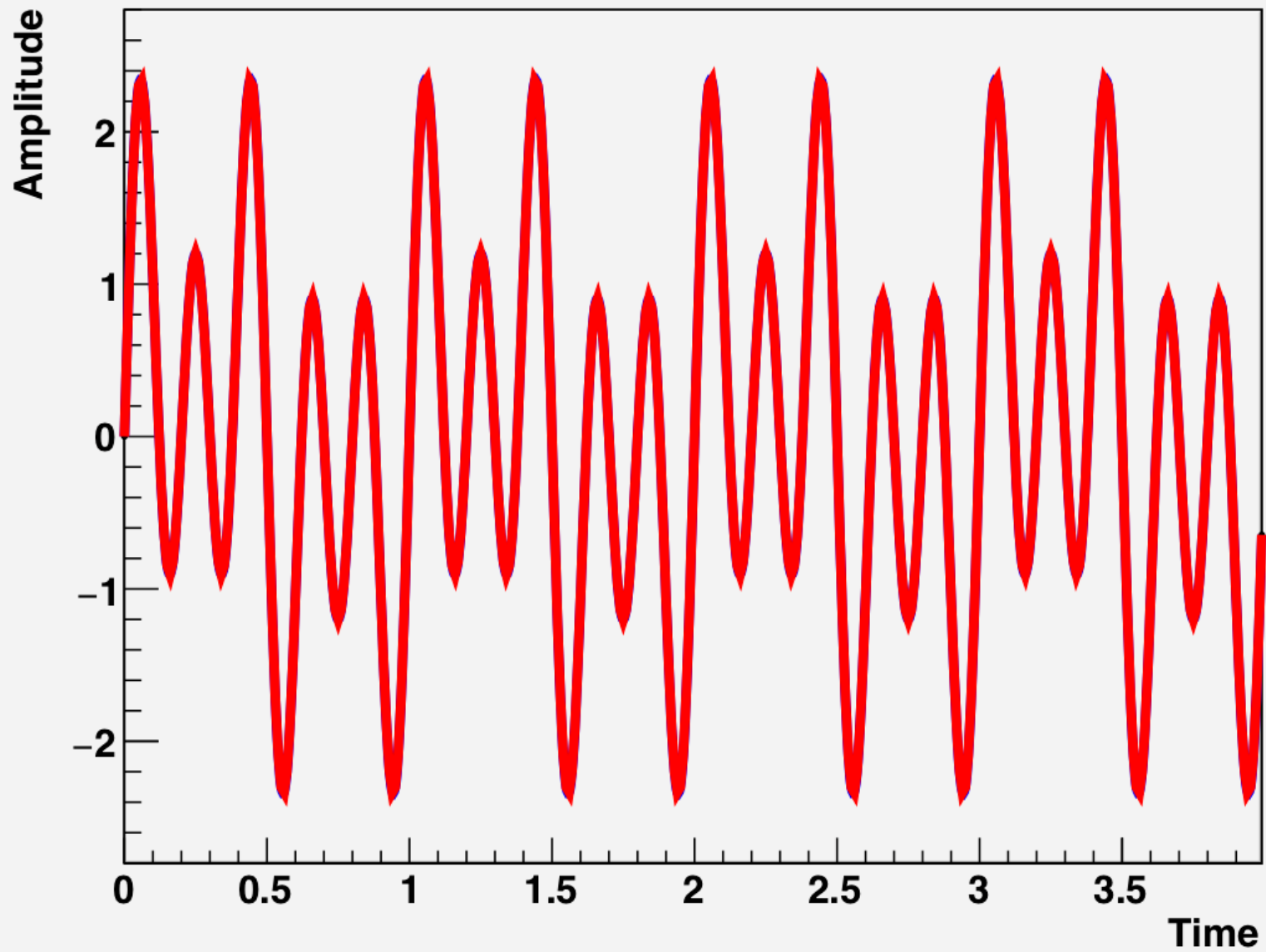
Final Residue



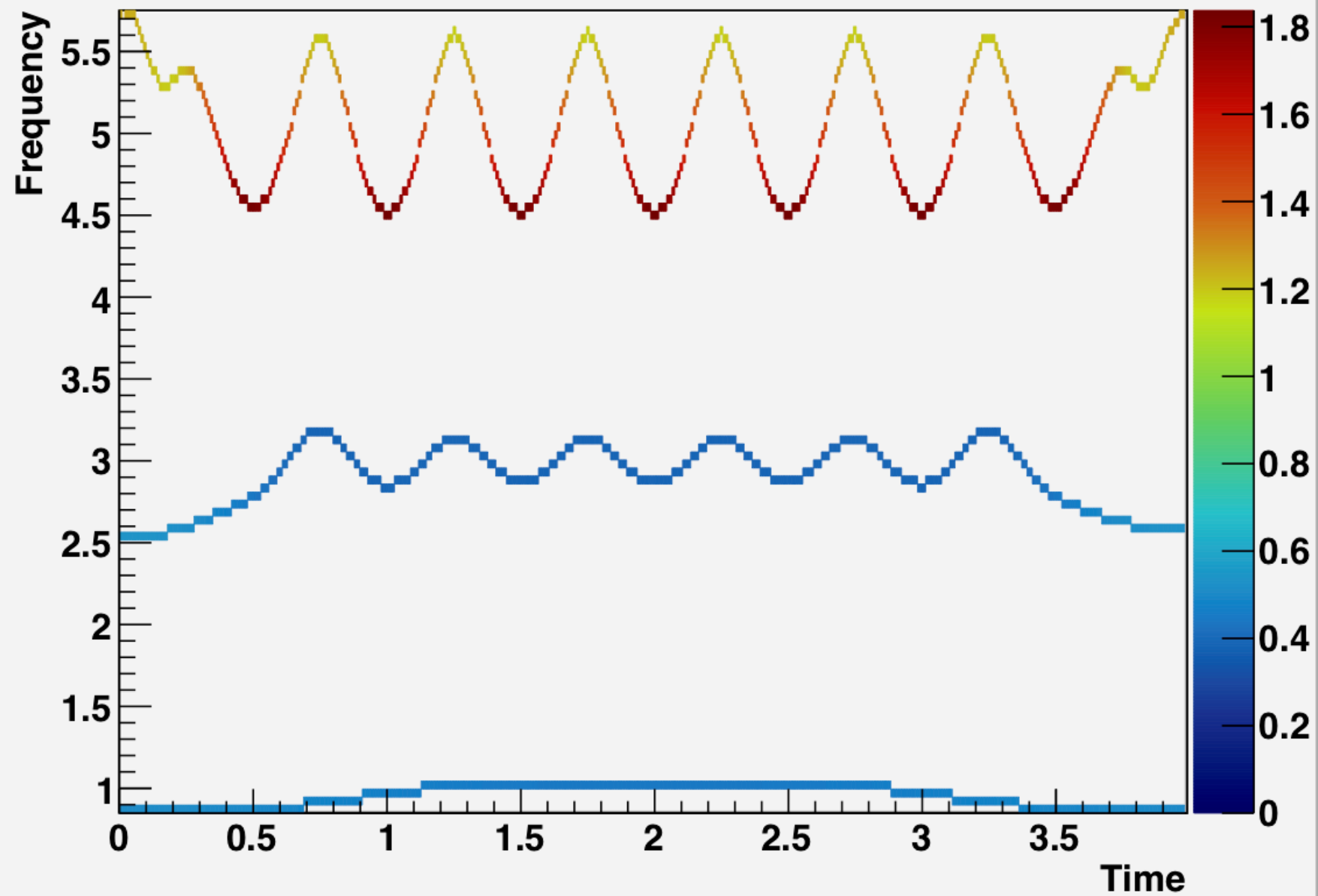
Correlation Coefficient VS Number of IMF



Original Sinal and Residue + Sum of IMF's



Hilbert Spectrum

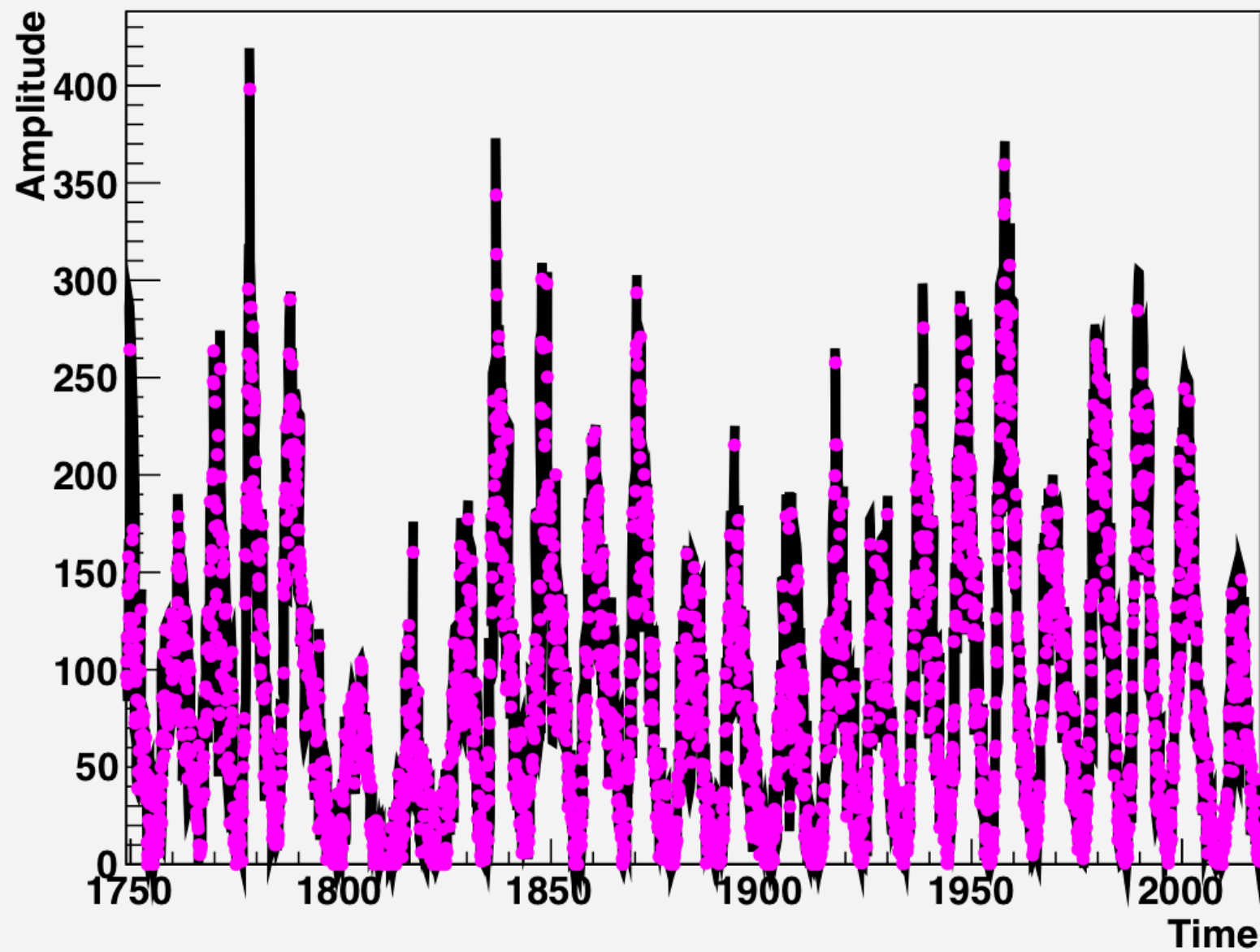


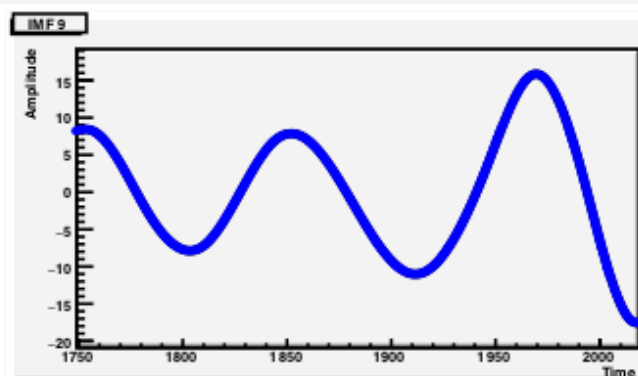
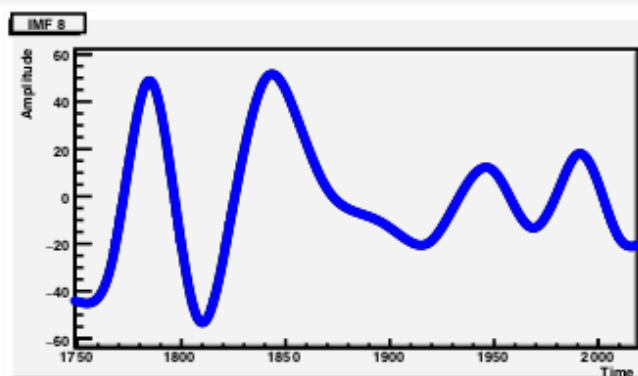
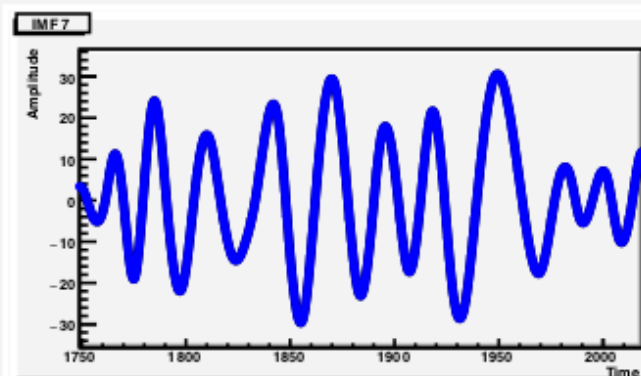
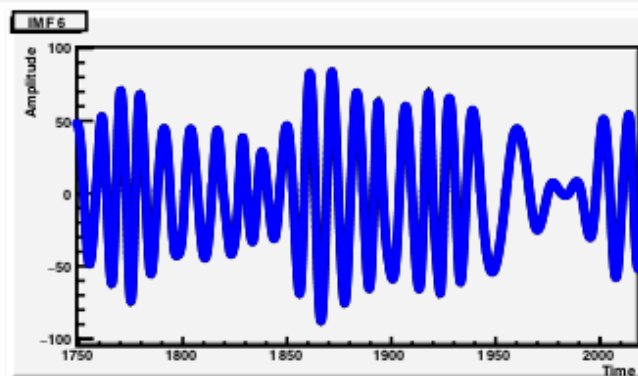
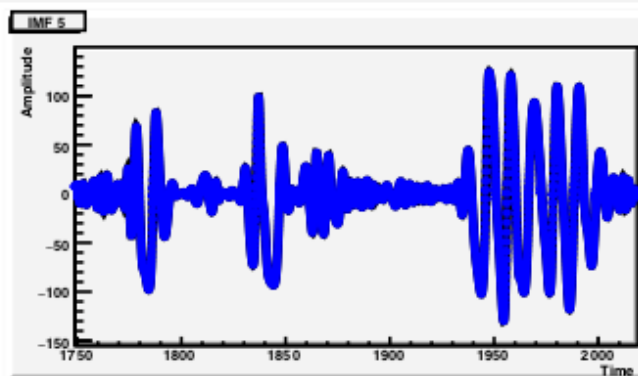
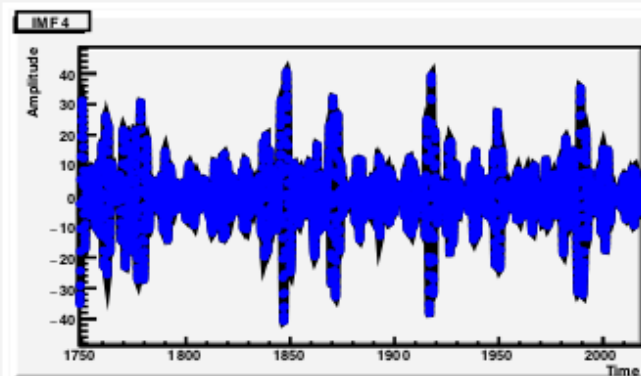
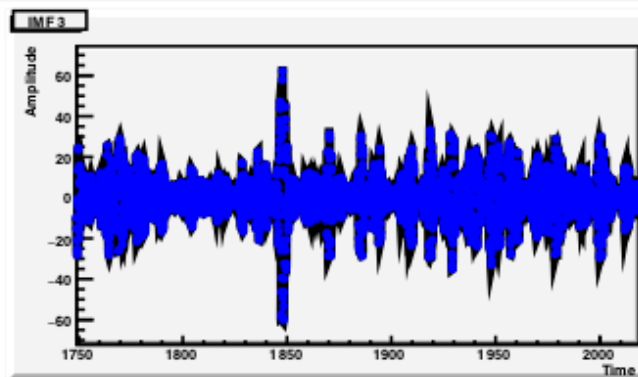
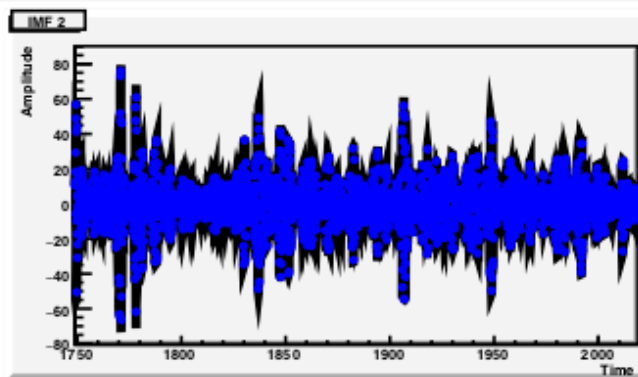
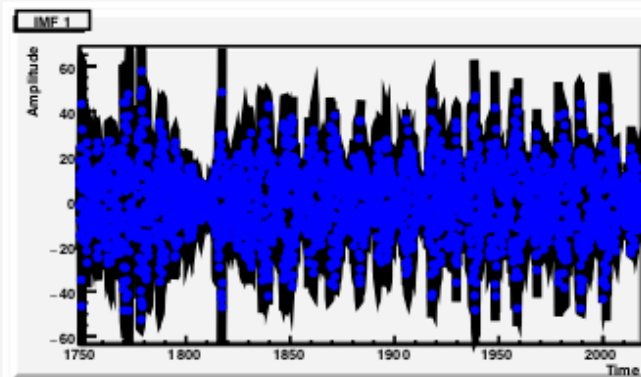
Exemplo de Implementação 2

Sun Spots

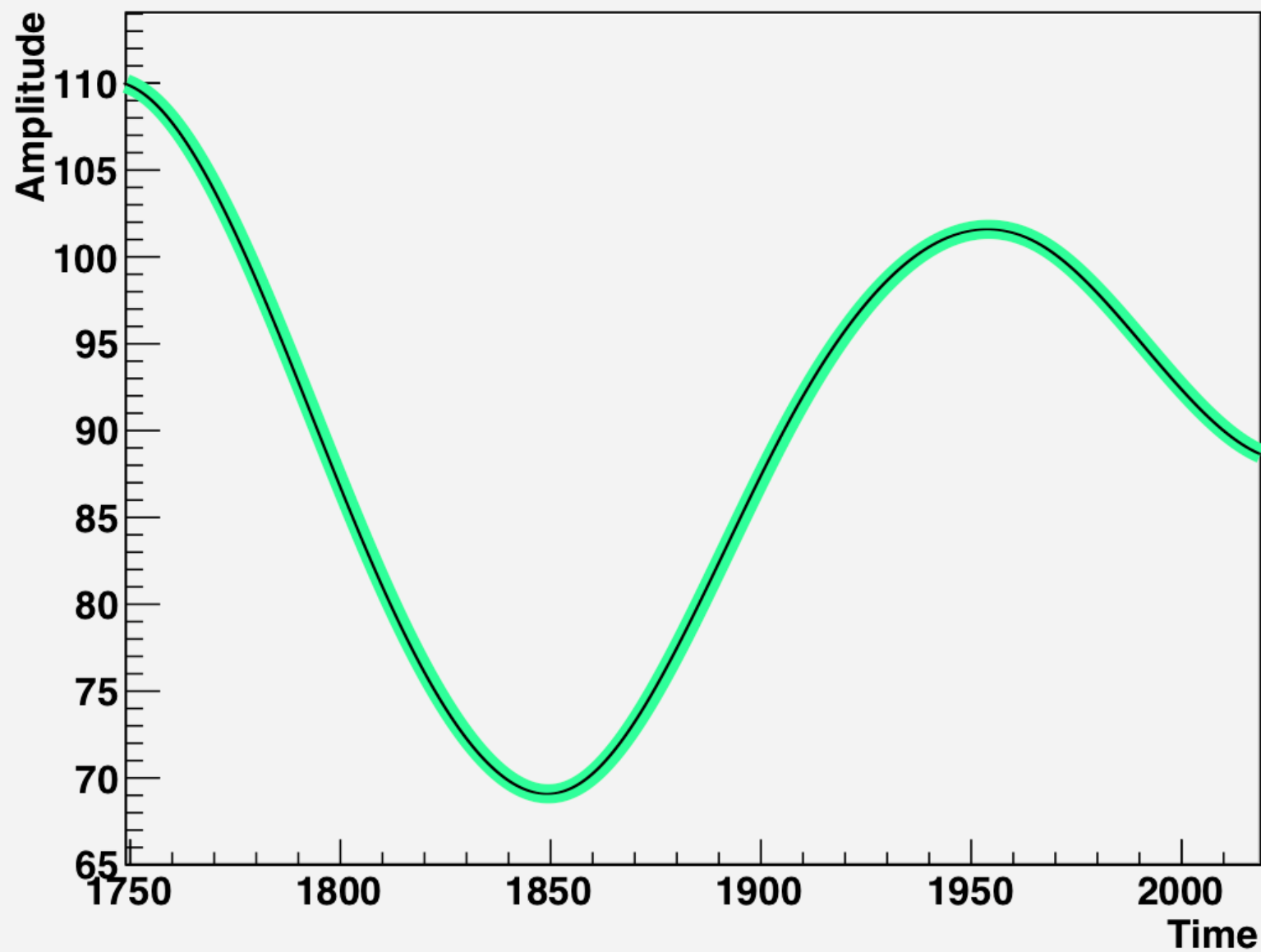
IMF	Nº de Iterações	Coeficiente de Correlação	Amplitude média	Frequência média	Período médio
1	41	0.13	14.5	4.15	0.24
2	34	0.08	12.9	2.11	0.47
3	24	0.09	11.5	1.13	0.89
4	14	0.07	10.9	0.59	1.70
5	32	0.28	43.4	0.22	4.55
6	6	0.36	51.1	0.09	11.11
7	7	0.12	19.1	0.04	25.00
8	6	0.14	33.3	0.02	50.00
9	9	0.15	11.1	0.01	100.00

Original Signal

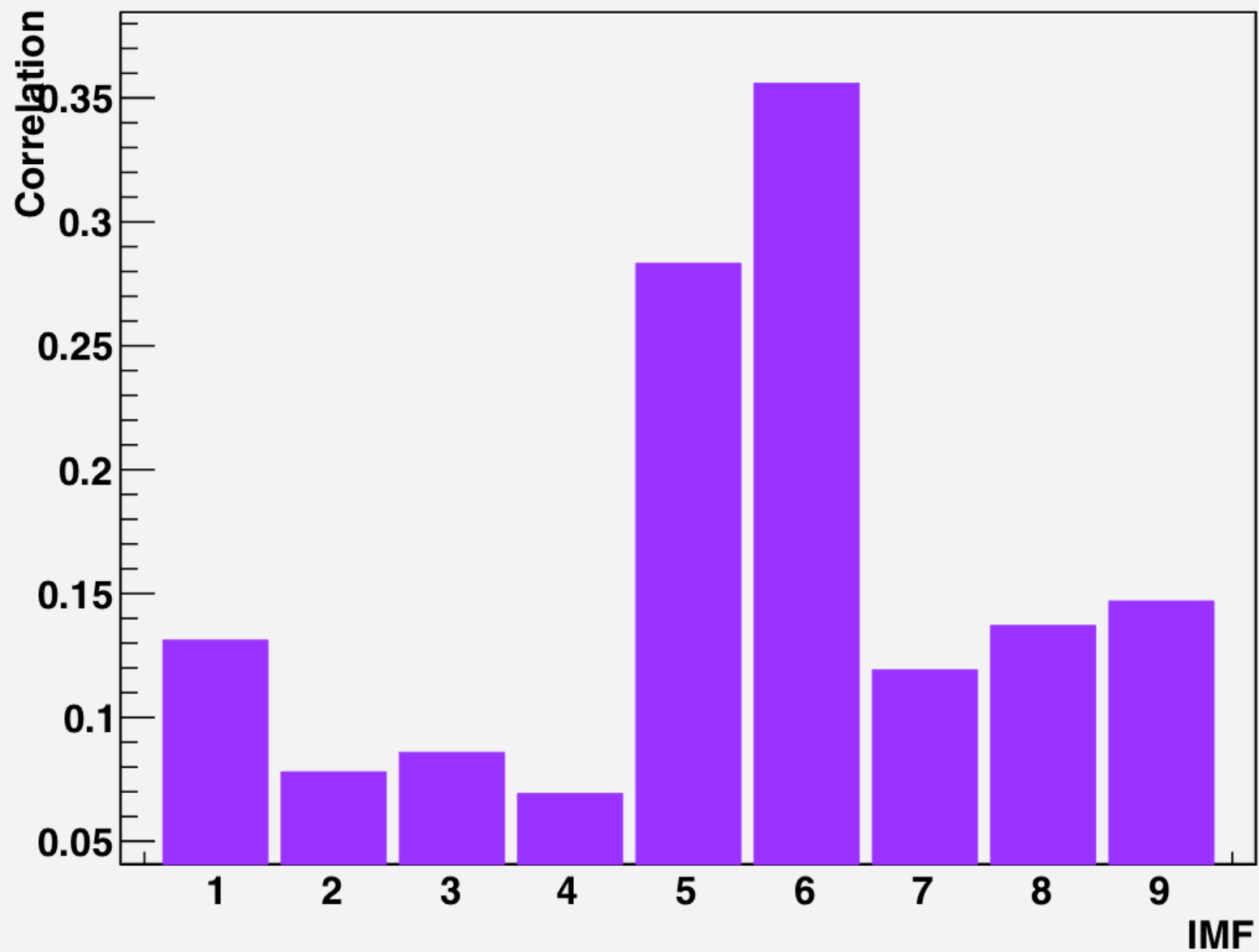




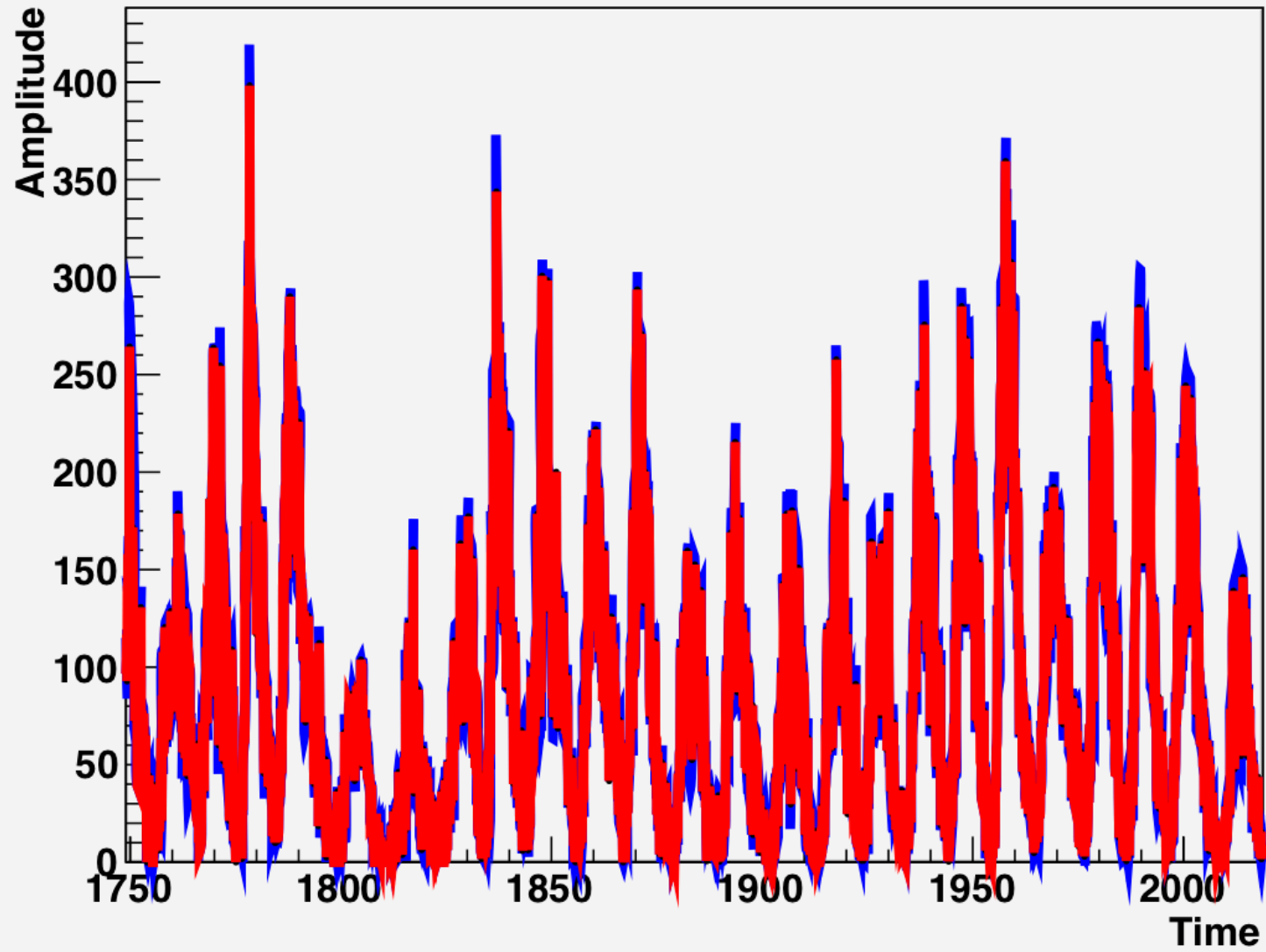
Final Residue



Correlation Coefficient VS Number of IMF



Original Sinal and Residue + Sum of IMF's



Hilbert Spectrum

