

# Non Linear Time Series Analysis with R

Prof. Marco Bittelli

University of Bologna, Italy

<http://www.dista.unibo.it/~bittelli/>

Date	Details
Day 1 (Monday)	
9.00-10.40	Fundamentals Concepts of Non Linear Analysis
10.40 – 10.55	Break
10.55 – 12.00	Linear and non Linear Dynamic behaviour
12.00-13.00	Lunch
13.00-15.00	Computer exercises with R: Linear and non Linear Dynamic behaviour
15.00-15.15	Break
15.15-16.30	Computer exercises with R: Linear and non Linear Dynamic behaviour
Day 2	
9.00-10.40	Phase space reconstruction
10.40 – 10.55	Break
10.55 – 12.00	Features of Chaotic systems
12.00-13.00	Lunch
13.00-15.00	Computer exercises with R: Phase space reconstruction
15.00-15.15	Break
15.15-16.30	Computer exercises with R: Features of Chaotic systems
Day 3	
9.00-10.40	Features of Chaotic systems
10.40 – 10.55	Break
10.55 – 12.00	Features of Chaotic systems
12.00-13.00	Break
13.00-15.00	Computer exercises with R: Features of Chaotic systems
15.00-15.15	Break
15.15-16.30	Computer exercises with R: Features of Chaotic systems
Day 4	
9.00-10.40	Data preprocessing
10.40 – 10.55	Break

Date	Details
10.55 – 12.00	Data preprocessing (continue).
12.00-13.00	Break
13.00-15.00	Computer exercises with R: Data preprocessing
15.00-15.15	Break
15.15-16.30	Computer exercises with R: Data preprocessing

Date	Detail
Day 5	
9.00-10.40	Applications of NLTS to real world data
10.40 – 10.55	Break
10.55 – 12.00	Applications of NLTS to real world data
12.00-13.00	Lunch
13.00-15.00	Computer exercises with R: Applications of NLTS to real world data
15.00-15.15	Break
15.15-16.30	Computer exercises Applications of NLTS to real world data