Spatio-temporal data mining for a better understanding of people mobility. The Bicycle Sharing System (BSS Case study)

Latifa Oukhellou
December 2012
BSS Workshop - Introduction

Analysis of Mobility patterns

• Human and social sciences framework
• Emergence of information and communication technologies, advent of new observations

→ Emergence of a concept: urban computing
→ New approaches based on computer science

Objectives in the transport domain

• Better understanding of mobility patterns of travellers and goods
• Better understanding of the use and performance of transportation systems
BSS Workshop - Introduction

- Five presentations dedicated to Data mining of BSS Systems
  - Lyon, Barcelona, Paris, London and Dublin
- Two transverse presentations
  - Use of Mobile Phone data
  - Analysis of data sources on bicycle mobility
Program - am

10h20  Latifa Oukhellou (Ifsttar, GRETTIA) – *Introduction*

10h30  Pierre Borgnat (ENS Lyon, Laboratoire de Physique),
*A Dynamical Network View of Lyon’s Vélo’v Shared Bicycle System*

11h00  Jon Froehlich (University of Maryland, HCIL - UIMACS),
*Sensing and Predicting the Pulse of the City through Shared Bicycling*

11h30  Etienne Côme (UPE, Ifsttar - Grettia),
*Spatio-temporal Clustering to analyze the Vélib’ Shared Bicycle System*

12h00  Lunch

13h30  Coffee break (amphithéâtre Navier)
Program - pm

14h00  **Vincent Aguilera** (UPE, LVMT),
       *Monitoring a Transit System with Mobile Phone Data.*

14h30  **Neal Lathia** (University of Cambridge, Computer Laboratory),
       *Measuring the Effect of Policy Changes in Shared-Bicycle System*

15h00  **Fabio Pinelli** (IBM Research and Development - Dublin),
       *Cityride: a Predictive Bike Sharing Journey Advisor*

15h30  **Francis Papon** (UPE, Ifsttar-DEST),
       *Analysis of Data Sources on Bicycle Mobility*

16h00  Discussions