**Workshop #3: Internet Traffic Characterization**

Name of the student: **Juan Pablo Royo Sales**

|  |
| --- |
| Reference of the paper (author/s, tittle and publication): |
| Will E. Leland, Member, IEEE, Murad S. Taqqu, Member, IEEE, Walter Willinger, and Daniel V. Wilson, Member, IEEE: ***On the Self-similar Nature of***  ***Ethernet Traffic (Extended Version),*** *IEEWACM TRANSACTIONS ON NETWORKING, VOL. 2, NO. 1, FEBRUARY 1994* |

1. Summarize in a few lines (10 - 12) the scope and focus of the paper, and its main contributions.

The focus of the paper is based on demonstrating through a rigorous mathematical model, that Ethernet LAN traffic is statistical self-similar. For doing the analysis the authors have based their study on analyzing real Ethernet traffic monitored in different years from 1989 until 1992, both internal company traffic and external traffic.

After analyzing this data and its behavior they detected that it follows a statistical self-similar behavior instead of the traditional Poisson-like or Markovian-like stochastic model that all the previous literature support.

After stating the mathematical properties that support that, in particular they have demonstrated that the data is a second-order self-similar statistical, they provide a Fractional Gaussian noise model based on the parameters obtained by the real data.

1. Identify the two or three aspects/concepts of the paper that you consider the most relevant to be discussed in the panel session.

* The rigorousness of the study
* The difference between the traditional believe of Poisson and Markovian approach and this based on data
* How obtaining real measurement and monitoring is useful to build accurate models.

1. What parts of the paper did you find questionable? E.g., omissions, unclear paragraphs, wrong statements, bad organized sections, etc.)

Regarding Omissions or unclearness I think I haven't detected any part of the paper that we can state that. Maybe some parts are bad organized in the sense that the separation of the Internal traffic vs. External it is sometime interchange with the mathematical analysis of the models which is a little confusing.

1. List (max 3) future/missing, research related ideas that came to your mind when/after reading the paper.

* Analysis on the fitting model to regenerate the real data
* Comparison on data generated by the Fractional Gaussian noise model with Poisson or Markovian, to show empirically the difference of fitting the model.

1. Any further comments from your own.