Sustainable e-Infrastructures

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1. Abstract

Virtualization and programmability of physical devices have emerged in the last years as new approaches to the design and operation of e-Infrastructures. They have enabled new usage possibilities, of which clouds and Future Internet testbeds are clear examples.

Still many interesting questions remain open. This talk provides an overview of my research on scalability, robustness and sustainability of e-Infrastructures. I will guide you through three research area where I am active, namely modeling, e-Services and greenness. Each one of these areas presents specific challenges:

- **Modeling:** *if user and applications want to control and program the behavior of network and computing devices what information do they need?*
- **e-Services:** *which new services can be created if one fully exploits programmability?*
- **Greenness and sustainability:** *how cane-Infrastructures become more sustainable and how can they contribute to more efficient use of resources? What is the role of programmability toward greener computing?*

References

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