



IDCOM Lunchtime Seminar

Tuesday 17 March 2015, 1.00pm

AGB Seminar Room

AGB Building, King's Buildings, EH9 3JL

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Virtualising Wi-Fi Networks

Abstract: As users increasingly use mobile devices to connect to the Internet, mobile operators are deploying Wi-Fi access points to increase coverage and offload capacity. In popular locations, such as airports, shopping centres and cafes, infrastructure is however frequently managed by local businesses and operators are required to share the limited resources of access points. This talk will expose a wireless LAN virtualisation mechanism that guarantees fair distribution of resources among service providers, while maximising the network throughput. The proposed solution dynamically adjusts the contention parameters employed by the clients of virtual networks and results will demonstrate its effectiveness over different user distributions and traffic demands. Finally, practical implementation aspects will be discussed.

Biography . I am a Chancellor's Fellow and Lecturer (Assistant Professor) in the [School of Informatics](#) at the [University of Edinburgh](#) and a member of the [Institute for Computing Systems Architecture \(ICSA\)](#). I am also affiliated to the [EPSRC Centre for Doctoral Training in Pervasive Parallelism](#), the [Li-Fi R&D Centre](#), and the Informatics [Security & Privacy group](#). Previously, I was a research fellow at the [Hamilton Institute](#) of the [National University of Ireland, Maynooth](#). Between 2007–2011 I was a research assistant at [IMDEA Networks](#) (Madrid Institute for Advanced Studies in Networks) and in 2010 I was a visiting researcher in the [Networks Group](#) at Rice University, Houston, USA. I hold a Ph.D. and a M.Sc. in Telematics Engineering from [University Carlos III of Madrid](#), and a Dipl.Eng. degree from the [Technical University of Cluj-Napoca](#), Romania. My research seeks to bridge the gap between fundamental mathematical models and real-world applications of computer networks. I focus on problems related to performance optimisation in wireless networks, network protocols and architectures, prototyping and test beds.

My CV is available [here](#).