

# Seminar on Channel Coding



**Escuela Universitaria de Ingeniería  
Técnica de Telecomunicación**

**Universidad Politécnica de Madrid**



## Contents

Lecture I: Challenges in Digital Communications

Lecture II: Channel Coding: Introduction into error-detecting and error-correcting codes.

Lecture III: Channel Coding: Fundamentals of linear block codes (1)

Lecture IV: Channel Coding: Fundamentals of linear block codes (2), Interleaving and Matlab exercise.

## Professor: Dr. Andreas Ahrens

Andreas Ahrens was born in Wismar, Germany, in January 1971. He received the Dipl.-Ing. degree in electrical engineering from the University of Rostock in 1996. From 1996 to 2008, he was with the Institute of Communications Engineering of the University of Rostock, from which he received the Dr.-Ing. and Dr.-Ing. habil. degree in 2000 and 2003, respectively. In 2008, he became a Professor for Signal and System theory at the Hochschule Wismar, University of Technology, Business and Design, Germany. His main field of interest are error correcting codes, multiple-input multiple-output systems and iterative detection for both wireline and wireless communication.

## Timetable

Tuesday, March 29<sup>th</sup>: 14:30h - 17:30h

Thursday, March 31<sup>th</sup>: 14:30h - 17:30h

## Room

3004

## Audience and Inscriptions

This seminar is mainly aimed to Master students and 3<sup>rd</sup> level students.

Inscriptions should be done at the students' secretary of the Master program or at the event room.

## Credits

The students attending the event will get 1 credit. Master students should perform an additional home work.