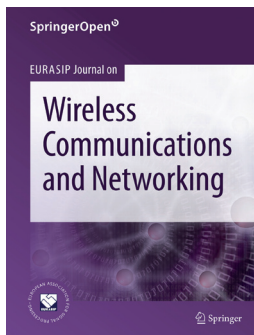


EURASIP Journal on Wireless Communications and Networking

Special Issue on Broadband Mobile Communications at Very High Speeds

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An important goal for future communication systems is to provide very high-speed data transmission, even under super platform speed scenarios such as high speed wheel-track trains (up to 574.8 km/h test speed or 380 km/h commercial speed), maglev trains (up to 581 km/h test speed or 431 km/h commercial speed), airplanes (about 400-1000km/h commercial speed), guided missiles (about 980-20,000km/h) or spacecraft (at least 28,440 km/h to remain on an earth orbit, at least 40,320 km/h to leave earth). A particularly important commercial application is the strong worldwide increasing demand for broadband wireless communications in high speed railway to provide information and onboard entertainment services to passengers, train control, train dispatch, train sensor status transmission, video surveillance, etc. In such super high mobility scenarios, there exist a number of communication challenges, i.e. fast handover, location update, high-speed channel modeling, estimation and equalization, anti-Doppler spread techniques, fast power control, dedicated network architectures, etc. Since the signal transmission under very high speed scenarios will inevitably experience serious degradation, it is imperative to develop effective broadband mobile communication techniques for such very high speed vehicular applications. The purpose of this special issue is to publish high quality, original and previously published work in this field. The topics to be covered include, but are not limited to:

- ▶ High-speed time-varying channel modeling, estimation and equalization
- ▶ Doppler shift/spread estimation and compensation
- ▶ Doppler diversity and anti-Doppler techniques
- ▶ Efficient modulation techniques employed in very high speed vehicles
- ▶ Fast power control
- ▶ Fast handover and group handover
- ▶ Fast location update
- ▶ Radio resource allocation
- ▶ Multiple access schemes for very high speed radio systems
- ▶ Distributed multi-antenna systems for very high speed radio systems
- ▶ Relay and cooperative communications (terrestrial and satellite based)
- ▶ High-speed vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) radio systems
- ▶ Dedicated radio network architectures

Submission Schedule

- ▶ **Manuscript Due:**
March 15, 2012
- ▶ **First Round of Reviews:**
May 15, 2012

Submission Instructions:

Before submission authors should carefully read over the Instructions for Authors, which are located at <http://jwcn.eurasipjournals.com/authors/instructions>. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at <http://jwcn.eurasipjournals.com/manuscript> according to the submission schedule. They should specify the manuscript as a submission to the “Special Issue on Broadband Mobile Communications at Very High Speeds” in the cover letter. All submissions will undergo initial screening by the Guest Editors for fit to the theme of the Special Issue and prospects for successfully negotiating the review process.

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