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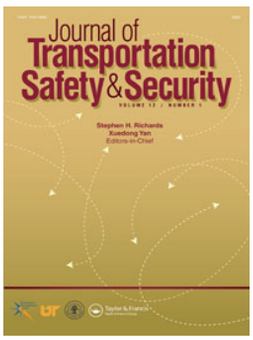

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EDITORIAL

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This special issue includes a selection of 14 papers out of the 97 papers that were presented at the 6th International Cycling Safety Conference (ICSC) in Bologna, Italy, on November 3–4, 2016. ICSC is an event gathering more than 150 delegates from more than 20 countries every year (www.cyclingsafety.net). The ICSC is an opportunity for researchers to exchange ideas and scientific results on cycling safety issues. The ICSC also tries to fill the gap among academics, policy makers, practitioners, and representatives from industry, by specifically including all groups.

The papers collected in this special issue address some of the most relevant topics for today's cycling safety research, including cycling behavior, crash causation, methodologies for cycling safety analysis, infrastructure design, and bicycle helmets.

De Angelis et al. performed a path analysis to show how cell phone use while cycling may increase the likelihood of crashes and near crashes in Italy. Distraction was also addressed by Geus et al., who compared the effect of distraction between adults and adolescents in the Netherlands. Cyclist are particularly vulnerable when overtaken by motorized vehicles; by measuring clearance and speed during overtaking, Garcia et al. compared safety across different peloton configurations to propose new criteria for safer peloton riding on two-lane rural roads. Schleinitz at al. investigated gap acceptance at crossings, showing that German drivers leave smaller gaps for (traditional and electrical) bicycles than for larger vehicles.

Crash risk at junctions was found not to depend on whether cyclists cycled on the left or right bicycle path in a study by Johanssen et al. that used data from the German In-Depth Accident Study (GIDAS) database. Otte et. al used crash data from GIDAS to compare demographics, crash prevalence, and injury outcomes between riders of traditional bicycles and pedelecs. As naturalistic data become increasingly available, Dozza proposes a novel procedure to combine crash data with naturalistic data in order to understand the extent to which near crashes are representative for crashes in safety analyses. Lücken and Wagner contribute to the discussion about safety-in-numbers by proposing a new method for data analysis, able to prove causal relation by including temporal information. Liu and Marker compare statistical models for crash causation analysis at signalized intersections and show how some infrastructure design may increase cycling safety.

Włodarek and Olszewski proposed a safer infrastructure design based on the analysis of naturalistic data collected in Poland. A new infrastructure solution for intersections is presented by Beard; this new solution was evaluated with the help of observational and questionnaire data and supported the rollout of new cyclist infrastructure at various locations in London. New results supporting the use of bicycle helmets to increase safety are presented in Bourdet et al., where the authors introduce a novel method for helmet testing that may support the design of bicycle helmets in the future. Boele et al. performed a longitudinal study to determine the extent to which school-based campaigns may impact helmet use in Dutch children four to eight years old. In the future, automated vehicles may share the infrastructure with cyclists; some

of the safety concerns related to this upcoming scenario are addressed in the study by Hagenzieker et al.

The contributions to ICSC in 2016 clearly show how cycling safety research is advancing and developing, taking advantage of new data sets and increasingly complex analysis methodologies. Cyclist behavior, especially in interaction with other road users, remains one of the most crucial topics for cycling safety research. Bicycle helmets are still a focus for passive cycling safety, whereas active safety to prevent bicycle crashes still largely rely on in-vehicle systems such as automated emergency braking. Children and adolescent cyclists are a growing interest for cycling safety research. Of course, infrastructure design and interaction between the infrastructure and the cyclists is a major concern for cycling safety research and, arguably, the main interest for policy makers and road authorities. In the future, we expect to see more research addressing the interaction between automated vehicles and cyclists as well as more contributions addressing new small e-vehicles for personal mobility (e.g., e-scooters and Segways). In fact, as novel road users join the urban traffic system, new safety concerns rise and so does the need for new regulations (e.g., vehicle-specific speed limits and infrastructure). ICSC is a unique forum where these concerns and needs may be addressed by sharing research results in an international network and among several stakeholders.

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