

PUBLIC LECTURE EVALUATION

Masaryk University

Faculty	Faculty of Science
Procedure field	Mathematics - Algebra and Theory of Numbers
Applicant	John Denis Bourke
Lecture date	April 27, 2021
Lecture topic	Factorisation systems in algebra and homotopy theory
Persons present (number)	27
Designated evaluators (board members)	<p>Prof. RNDr. Jiří Rosický, DrSc. <i>Department of Mathematics and Statistics, Faculty of Science, Masaryk university</i></p> <p>Prof. RNDr. Jan Paseka, CSc. <i>Department of Mathematics and Statistics, Faculty of Science, Masaryk university</i></p> <p>Prof. Maria Manuel Clementino, PhD <i>Department of Mathematics, University of Coimbra</i></p>

John Bourke explained the development of concepts of factorization system, weak factorization system and algebraic weak factorization system. He gave examples of these systems in algebra and homotopy theory. The emphasis was on the last concept where John Bourke presented his results obtained jointly with Richard Garner. In particular, he explained how double categories enter the theory and how they can be used for an appropriate concept of cofibrant generation.

The presentation was very clear and guided the audience from basic concepts to current state of knowledge. In the discussion, John Bourke reacted to all question and comments.

Conclusion

The lecture delivered by John Denis Bourke, entitled "Factorisation systems in algebra and homotopy theory" and delivered as part of the habilitation appointment procedure, **demonstrated** sufficient scholarly qualifications and pedagogical capabilities expected of applicants participating in a habilitation procedure in the field Mathematics - Algebra and Theory of Numbers.

The lecture took place online on April 27. The above-mentioned members of the habilitation board attended the lecture and provided its evaluation. All designated evaluators are familiar with the text of the evaluation and agree with it.



Date: April 30, 2021

Jiří Rosický

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Jan Paseka

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Maria Manuel Clementino

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