

ECTQG 2021 – Special Session proposal

Exploration and validation of spatial simulation models

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Spatial simulation models generally involve complex dynamics, what makes their validation a particularly difficult yet crucial issue. Geographical models furthermore raise the question of the genericity of simulation results, while specific methods for sensitivity analysis which account for the spatial dimension are required. This special session aims at exploring recent developments and perspectives in methods to explore and validate spatial simulation models. Contributions are as much expected from an empirical viewpoint (case studies of model validation, co-construction of models and validation methods), as from a methodological viewpoint (development and implementation of new methods, benchmark of methods) and from a theoretical viewpoint (definitions of validation, of model coupling, of spatial complexity, interdisciplinary perspectives, literature review, critical positioning). The construction of methods taking advantage of High Performance Computing will also be an important focus, to highlight the role of computation in such progresses.

Possible publication outcome: special issue in *Environment and Planning B*