



## International Tourism Congress ITC2022 Tourism – Going Back/Forward to Sustainability

November (16)17-19, 2022, Łódź, Poland

BOOK OF ABSTRACTS

Organisers:



**FACULTY OF  
GEOGRAPHICAL SCIENCES**

University of Lodz



**CiTUR**®

CENTRE FOR TOURISM  
RESEARCH, DEVELOPMENT  
AND INNOVATION

Partners:



Special session on sustainable spatial planning of tourism destinations is to disseminate the results of the project SPOT. Project SPOT was supported by the European Commission under the Erasmus+ Programme (2019-1-PL01-KA203-064946). The ITC2022 and the special session reflect only the position of the authors, and the European Commission and the National Agency are not responsible for the substantive content contained therein or for the use of the information contained therein. For more visit: <https://spot-erasmus.eu/>.

International Tourism Congress ITC2022

**TOURISM – GOING BACK/FORWARD TO SUSTAINABILITY**

November (16) 17-19, 2022

Łódź, Poland

Organised by

**Faculty of Geographical Sciences, University of Lodz (Poland)**

in cooperation with

**CiTUR Centre for Tourism Research, Development and Innovation.**

## 6. VISITORS' INTRA-ATTRACTION SPACE-TIME BEHAVIOUR: A CONTENT AND BIBLIOMETRIC ANALYSIS

Márcio Martins\*, Isabel Rodrigues, Elsa Esteves

Instituto Politécnico de Bragança, Portugal

\*Corresponding author: marcio.martins@ipb.pt

**Goal:** The aim of the paper is to identify the research trends on visitors' intra-attraction space-time behaviour in tourism studies, presenting and discussing some theoretical aspects related to concepts, constructs and methodological options expressed in articles related with this topic published in Scopus database. The main contributions to the management of intra-attraction visitors' space-time behaviour are provided.

**Method:** Literature review, content and bibliometric analysis using VosViewer software.

**Findings:** The search carried out in the Scopus platform reveals a growing interest in the visitors' space-time behavior in tourism studies. The most productive authors, the most relevant journals and the research areas of published articles were identified. With the selected articles a content analysis was performed and the geographic scale of analysis and the methodology used were also identified. However, few articles specifically focus on visitors' intra-attraction behavior have been published.

Keyword co-occurrence analysis allowed the identification of main research topics with focus on distinctive themes, such as "tourism development", "tourist behavior", "ecotourism", "tourist attraction", "big data" or "social networks", among others.

The main contributions to the attractions management were selected and analysed, such as, to better managing visitor congestion and crowding, reducing waiting times; to the enhancement of the attraction's facilities and the quality of tourist experiences, in particular by implementing measures to improve visitor mobility; and to the segmentation of the target public, promoting personalised products and services, among others.

**Limitations:** There are few and limited research on the spatiotemporal behaviour of visitors at the intra-attraction level.

**Practical implications:** Understand visitors' space-time behavior at intra-attraction level allow attraction managers to better understand visitors behaviour in the different seasons of the year, improving attractions and the overall tourist experience, contributing to a more sustainable management of facilities.

**Originality:** To our best knowledge, there is no bibliometric analysis conducted using a systematic literature review with focus on visitors' space-time behavior at intra-attraction level. Knowledge from this paper could serve as a support for strategic planning, market spreading and modeling new theoretical frameworks.

**Key words:** Intra-attraction; Theme parks; Visitor space-time behaviour; Bibliometric analysis.

### References:

Birenboim, A., Anton-Clavé, S., Russo, A. P., & Shoval, N. (2013). Temporal Activity Patterns of Theme Park Visitors. *Tourism Geographies*, 15(4), 601–619. <https://doi.org/10.1080/14616688.2012.762540>

- Birenboim, A., Reinau, K. H., Shoval, N., & Harder, H. (2015). High Resolution Measurement and Analysis of Visitor Experiences in Time and Space: The Case of Aalborg Zoo in Denmark. *The Professional Geographer*, 67(4), 620–629. <https://doi.org/10.1080/00330124.2015.1032874>
- Huang, X., Li, M., Zhang, J., Zhang, L., Zhang, H., & Yan, S. (2020). Tourists' spatial-temporal behavior patterns in theme parks: A case study of Ocean Park Hong Kong. *Journal of Destination Marketing and Management*, 15(September 2019), 100411. <https://doi.org/10.1016/j.jdmm.2020.100411>
- Xiao-Ting, H., & Bi-Hu, W. (2012). Intra-attraction Tourist Spatial-Temporal Behaviour Patterns. *Tourism Geographies*, 14(4), 625–645. <https://doi.org/10.1080/14616688.2012.647322>
- Yao, Q., Shi, Y., Li, H., Wen, J., Xi, J., & Wang, Q. (2021). Understanding the tourists' spatio-temporal behavior using open gps trajectory data: A case study of yuanmingyuan park (Beijing, China). *Sustainability (Switzerland)*, 13(1), 1–13. <https://doi.org/10.3390/su13010094>
- Zheng, J., Bai, X., Na, L., & Wang, H. (2022). Tourists' Spatial–Temporal Behavior Patterns Analysis Based on Multi-Source Data for Smart Scenic Spots: Case Study of Zhongshan Botanical Garden, China. *Processes*, 10(2). <https://doi.org/10.3390/pr10020181>

## 7. SMART WEB PLATFORM FOR MONITORING SUSTAINABLE TOURISM

Candida Silva<sup>1\*</sup>, Bruno Barbosa Sousa<sup>2</sup>, Fernando Perna<sup>3</sup>, Goretti Silva<sup>4</sup>, Susana Lima<sup>5</sup>, Aida Carvalho<sup>6</sup>, Carlos Fernandes<sup>7</sup>, Eugénia Devile<sup>8</sup>, Gorete Dinis<sup>9</sup>, Maria Alexandra Malheiro<sup>10</sup>, Maria João Custódio<sup>11</sup>, Maria López

<sup>1</sup> Polytechnic Institute of Porto; <sup>3</sup> Universidade do Algarve – CiTUR; <sup>4, 11</sup> Polytechnic Institute of Viana do Castelo - CiTUR, Portugal; <sup>5, 8</sup> Polytechnic Institute of Coimbra - CiTUR, Portugal; <sup>6</sup> Polytechnic Institute of Bragança - CiTUR, Portugal; <sup>7</sup> Polytechnic Institute of Viana do Castelo – CiTUR; <sup>9</sup> Polytechnic Institute of Portalegre – CiTUR; <sup>10</sup> Polytechnic Institute Cávado e do Ave - CiTUR

\*Corresponding author: candidasilva@esht.ipp.pt

**Goal:** The constant monitoring of tourism, all its manifestations, and implications requires intelligent systems that bring together different bodies of knowledge and perspectives, and multidisciplinary teams, such as higher education institutions, promoting the collection and permanent analysis of data, generated using Information and Communication Technologies (ICT), contributing to strategic planning and assertive decision-making. ITC offers advanced and innovative services to improve the quality of life for citizens and organizations through connectivity methods (e.g., searching, booking, paying, reviewing, and recommending) [1-3], the so-called smart experiences.

As tourism activities generate different types and huge amounts of data, the underlying sources, like communication systems, web activity, business activity, sensors, and crowdsourcing, need to be considered in tourism statistics and smart monitoring systems [4], enabling the development of smart and sustainable destinations [5]. Therefore, the aim of this work is to define a prototype of an architecture of a web platform to collect, store, process, and give access to information on sustainability in tourism, which makes it possible to integrate data from different sources and types, namely surveys, mobile, big and georeferencing data, etc., and allowing interoperability with sources and other platforms.

**Method:** The design science research methodology [6] will be followed, with its 5 phases: (1) problem definition – made through literature review and resulting in a preliminary proposal of framework; (2) suggestions – consulting specialist with interviews and focus group technics and deepens review of literature. The result will be a first scratch of the architecture of the platform; (3) Development – modelling and design of web platform prototype and doing a concept prove of it by discussing it with the specialists with interviews, focus groups and scientific community. The result will be the prototype