## Indicator systems for measuring tourism intensification and touristification because of social conflicts. A comparative study in Malaga and Barcelona<sup>1</sup>

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## **Abstract**

Overtourism spreads among tourist destinations because of urban tourism. This study aims to define patterns in tourism gentrified cities through their associative network. The main objective is to measure and define two indicator systems to evaluate tourism intensification and touristification, with the presence of stakeholders in urban areas. The proposed indicators are dependent on tourism-related accommodations and activities variables, the former, and sociodemographic and economic ones, the latter. The census tract is defined as territorial unit to test the indicators considered: citizen initiatives involved, tourist accommodations and facilities, and socio-economic and demographic profiles with employment and social status. All variables were tested in two Spanish port cities: Malaga and Barcelona. Both cities combine the following features: (1) lowcost hub airport, (2) cruise port for large shipping companies, and (3) a wide cultural and leisure offer. Geographic Information System tool has served to map and describe in a spatial way every indicator defined, such as the Airbnb offer spreads hugely in the city center, the lack of residential use there because of tourist accommodations and facilities which replace long term rents, and a depopulation in the historic center and neighbourhoods close to it. Spatial correlations among indicators have served to find associations by indicator system and between both of them, including the sum of actors involved in the urban areas analysed as a way to measure the social conflict; such as the relationship between areas with a huge Airbnb listings and high rents. Both mapping and associations may serve as a basis for local administration to monitor variables considered as a longitudinal study, and promote new urban policies dealing with all stakeholders' demands. New research may include another geostatistical operation and algorithm to refine touristification scopes, as well as addition of variables to consider future tourist trends.

**Keywords**: Indicator System, Tourism Intensification, Touristification, Gentrification.

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