

## Conference Theme:

2. Demographic Changes and Migration through Data Integration

## Contribution:

Speed talk

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### Title

## HIPGDAC-ES: Historical Population Grid Data Compilation for Spain (1900- 2021)

### Abstract

Historical population grids are scarce or rather non-existent. This work represents a first effort in this direction. Using historical cadastral data and homogeneous population data at municipal level, constructed in different projects, we generate, for the whole of Spain, population grids with 100m x 100m and 1km x 1km resolutions and all census years from 1900 to 2021.

These grids are top-down. The methods used are similar to those used in the generation of population grids for the entire globe in the last decades by combining information from satellite images with demographic information from censuses.

Given the richness of cadastral information, and the possibility of going much further back in time than satellite information, we can generate much older population grids. Although far from perfect, these grids provide a better approximation to the distribution of the population in those years than the simple consideration of the municipal population or the count in the settlements derived from the gazetteers associated with the censuses.

The possibility of taking our estimates up to 2021, where we have a bottom-up population grid from the Spanish National Statistical Institute (INE) derived from the 2021 census allows us to validate our methods, albeit only for the most recent dates.

This database should be considered work in progress, subject to validation through experimentation, and may undergo changes in the future.

The full work can be seen at: <https://go.uv.es/goerlich/HIPGDAC-ES>