

## The endangered future of minority languages in Europe as viewed by physicists

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The retreat and vanishing of languages in our globalized world, and particularly also in Europe, is a recurrent theme and some aspects may be described as diffusion processes. All states of the European Union stress their willingness to save their minority languages – reality is sometimes different. The retreat of Scottish Gaelic has already been discussed in the talk by Anne Kandler at DF 7 and that of Slovenian in Carinthia by Katharina Prochazka at DF 8. Meantimes physicists and mathematicians even have applied game theory for discussing the complicated relation between peer language and minority language for the case of Basque in Spain.

Actual data often rather represent wishful thinking in order to be well received in the European Union (and to benefit from European grants). Real conservation of regional distinctions, however, appears difficult considering international communication and migration. In a physical concept: entropy works against conservation of these differences.

We have recently compared the advance and retreat, resp. of languages concentrating on two paradigmatic contrasting examples for which particularly ample data were available: a moving language border and language loss in language islands in the past. Censuses from the Austrian-Hungarian monarchy before World War I offer detailed data from a still multiethnic and multilingual regime, before the breakdown of that Empire smoothed many of the distinctions. We will discuss the issues not without having a side glance on present new minorities created by immigration into Europe.