Sound patterns of the PIE root: A new online search tool retrieving roots from phonetic features

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PIESPS (Proto-Indo-European Sound Pattern Search engine) is a newly developed search engine made for Indo-Europeanists. It enables retrieval of roots based on their phonetic structure by entering search strings consisting of simple regex search operands and simple phonetic notation.

Research involving statistics on phonology requires a great amount of work involving many dictionary look-ups, the manual retrieval of individual sound patterns, and more generally creating the appropriate data structure for this purpose.

PIESPS is developed to make this process easier: When making a corpus of roots searchable by storing the orthographic forms and mapping them to phonemic transcription, the task of finding, e.g., *all roots containing any velar before a glide* will be accomplished in a matter of seconds. The beta version allows users to search through the roots of LIV, and future features will include user-provided corpora and user-defined phonetic descriptions (e.g., should a search for the feature "labial" yield roots containing *h_3?).

The current presentation will give the audience an introduction to the search engine and how it works, and through a case study of the distribution of the PIE labiovelars in position before and after * u̯ discuss the possibilities and limitations of this tool.