

Meter identification of Sanskrit verse

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Sanskrit poetic literature beginning with the Vedic hymns has a great emphasis on meter (*chandas*). Verses in poetic works are composed in particular meters documented in the science of poetics (*chandaḥśāstra*). The standard traditional works of the science of poetics feature Piṅgala's *Chandaḥśāstra* and Kedāra's *Vṛttaratnākara*. In the mid of 20th century two major scholars, viz. Patwardhan and Velankar, compiled an exhaustive list containing over six hundred different meters.

Identification of meter presents a difficult task for students of Sanskrit. To offer assistance in this task, the present work develops software to recognize meters. In 2006–2007, Ananda Mishra developed software to analyze metrical patterns (<http://sanskrit.sai.uni-heidelberg.de/Chanda/HTML/>). The software, deemed a test version by its creator, recognizes 1,352 metrical patterns. Although the work is prodigious, a few deficiencies detract from it:

1. It recognizes only meters with a fixed number of syllables per pāda and cannot recognize meters based upon the number of morae per foot.
2. It requires special treatment of contiguous vowels since the Kyoto-Harvard encoding it requires fails to distinguish sequences of the contiguous simple vowels *ai* and *aii* from the diphthongs *ai* and *au*.
3. It doesn't handle accented text.

The present paper presents a Sanskrit metrical analyzer that improves upon Mishra's work. It analyzes all types of meters, uses a precise phonetic encoding yet allows numerous input methods, and accepts accented text. The tool should be widely useful to Sanskrit students and scholars, especially those who focus on poetics.