## Computational tools for rhythm analyses: application to Dhrupad and instrumental music

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The instrumental and Dhrupad vocal performances of North Indian music are closely related in that they are governed by the similar rhythmic framework. Tempo and rhythmic elaboration form the basis for improvisation, so characteristic of the genre. The study of rhythmic organization has therefore been of musicological interest and has been successfully attempted via the manual annotation of performance recordings. We discuss computational approaches to automating the rhythmic analyses with audio processing tools using examples that illustrate both the promise and the challenges.