

## **Some Statistical Properties of Harmony and Voice Leading in Shemokmedi School Georgian Chant**

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Georgian sacred polyphony is stunningly beautiful and has prompted many questions about its harmonic and voice-leading properties. These questions are complicated by our access to the tradition entirely through Western transcriptions from the turn of the twentieth century and a handful of sound recordings. Some have posited diatonic modes in Georgian sacred and folk music. Whether such modes are even conceivable depends on the tuning system, which is a matter of dispute. Some have theorized a traditional Georgian tuning system with unequal steps, while others have posited one with equal steps or constantly changing steps. To address the question of modes and indirectly the question of tuning, I analyzed statistical properties of harmony and voice leading in a collection of *Shemokmedi* School Georgian chant as sung by Dmitri Patarava. This preliminary study found no clear differences between passages with different bass or tenor finals and thus no support for the hypothesis of modes. But the passages shared suggestive, systematic patterns of melodic and harmonic tendencies. These patterns provide indirect support for a system of equal steps.