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Title: The voice transform on the Blaschke group III

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In this paper we present results connected to the voice transform of the Blaschke group generated by a representation of the group on the Bergmann space $H^2(\mathbb{D})$. Sections 1 and 2 contain the basic notations, definitions and results. In Section 3 the matrix elements of the representation on $H^2(\mathbb{D})$ are computed and the properties of the matrix elements are studied. Using these properties it is given a direct proof for the analogue of the Plancherel formula and also it is proved the irreducibility of the representation. It is introduced an orthogonal rational wavelet system and it is showed that the Bergman projection can be expressed with the voice transform and the rational orthogonal wavelet system. As a consequence it is obtained that the matrix elements of the representation form an orthogonal system in $L^2(\mathbb{B})$. It is proved that every element from $H^\infty(\mathbb{D})$ is admissible. Sections 4 contains the proofs.

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