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## FINITE SECTIONS OF SEGAL-BARGMANN SPACE TOEPLITZ OPERATORS WITH POLYRADIALY CONTINUOUS SYMBOLS

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**ABSTRACT.** We establish a criterion for the asymptotic invertibility of Toeplitz operators on the Segal-Bargmann space on  $\mathbb{C}^N$  whose symbols have the property that the polyradial limits

$$\lim_{r_1, \dots, r_N \rightarrow \infty} a(r_1 t_1, \dots, r_N t_N)$$

exist for all  $(t_1, \dots, t_N) \in \mathbb{T}^N$  and represent a continuous function on  $\mathbb{T}^N$ .

### 1. INTRODUCTION

The following problem emerges in connection with several questions on Toeplitz operators. Given a Toeplitz operator on some Hilbert space of analytic functions, consider the compressions of the operator to the subspaces of polynomials of degree at most  $n$ . If the given operator is invertible, are its compressions invertible for all sufficiently large  $n$  and do the inverses of these compressions strongly converge to the inverse of the operator as  $n$  goes to infinity? In case the answer to this question is affirmative, one says that the given Toeplitz operator is asymptotically invertible or that the finite section method is applicable. The finite section method has been studied for a long time for Toeplitz operators on Hardy

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