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Brett D. Wick* (wick@math.gatech.edu), School of Mathematics, Georgia Institute of Technology, 686 Cherry Street, Atlanta, GA 30332-1060. Carleson Measures for Besov-Sobolev Spaces and Non-Homogeneous Harmonic Analysis.

In this talk we will discuss the characterization of Carleson measures for the Besov–Sobolev space of analytic functions B_2^{σ} on the complex ball of \mathbb{C}^d . In particular, we demonstrate that for any $\sigma \geq 0$, the Carleson measures for the space are characterized by a "T1 Condition". The method of proof of these results is an extension and another application of the work originated by Nazarov, Treil and Volberg. Additionally, the method of non-homogeneous harmonic analysis of Nazarov, Treil and Volberg is extended to handle "Bergman–type" singular integral operators, which is key to the characterization of Carleson measures. (Received September 12, 2011)