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Bieberbach conjecture, 1/4-theorem and Bloch constant in infinite dimensions

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Abstract

In this talk, we investigate holomorphic mappings F on the unit ball $\mathbb{B}$ of a complex Banach space of the form $F(x) = f(x)x$, where f is a holomorphic function on $\mathbb{B}$.

(1) First, we investigate a criterion for univalence on $\mathbb{B}$.

(2) Next, we investigate a generalized Bieberbach conjecture, 1/4-theorem,and lower bound for the Bloch constant for such mappings by using a new approach.

This is an announcement of a joint work with Gabriela Kohr and Mirela Kohr [1].

References

[1] H. Hamada, G. Kohr, and M. Kohr, Bieberbach conjecture, Bohr radius, Bloch constant and Alexander's theorem in infinite dimensions, submitted.

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