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**Application of Functional Calculus
to Complex Cauchy Problems**

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Abstract. In this paper, we study an approach of functional calculus in several variables developed for a particular case of commuting operators. This approach, which differs from the classical one, originates in the works of Fantappiè. It is useful to obtain explicit solution to partial differential equations and holomorphic Cauchy problems, as well as to make a link between the holomorphic functional calculus, the theory of analytic functionals, and the Fantappiè transform of analytic functionals.

Keywords. Cauchy problem, functional calculus, analytic functionals, Fantappiè transform.

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