Research project for a "Assegno di ricerca" on *Complex Analysis in one or several variables, Operator Theory, Function Spaces.*

This Postdoc position "starting grant" is for a research project in Mathematical Analysis, in the area covering Complex Analysis in one or several variables, Operator Theory, Function Spaces, and related topics. A preference is given to candidates having had a proven research experience in Complex Analysis (one and/or several variables) with a preference for those being conversant with methods from Differential and Metric Geometry, or "hard analysis" (integral inequalities, dyadization schemes, methods from martingale theory).

The specific research project is to be agreed upon with the holder of the position, within a broad range of topics, see below for a nonexhaustive list. The research project presented by the candidate is especially important in the process of evaluation.

- Analysis on Reproducing Kernel Hilbert Spaces, with a special emphasis on holomorphic spaces in one or several variables.

- Integral inequalities, with a special emphasis on weighted ones.

- Complex Analysis in several complex variables, with methods from metric geometry and/or dynamics.

- Applications of Complex Analysis to Operator Theory.

The holder of the position is expected to interact with researchers and PhD students in the department; and to deliver a series of seminars, or part of a PhD level course, on topics related to her/his previous research work. It is a starting position, thought for candidates who have recently obtained their PhD, or are planning to defend their thesis within a short time; although more senior candidates will be considered.

Plan of activities.

Months 1-3. Elaboration of a specific project within the scope of the research project attached to the call, and acquisition of the prerequisite knowledge.

Months 4-6. Research work on the project. The PostDoc is expected to deliver e series of seminars or part of a graduate course.

Months 7-11. Research work on the project.

Month 12. A first draft of one or more papers with the conclusions of the project is written and posted on Arxiv.

Bologna, 06/10/2020

Nicola Arcozzi