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Large linear manifolds of noncontinuable boundary-regular holomorphic functions

Let G be a domain in the complex plane. We denote by $H_e(G)$ the set of all holomorphic functions on G having G as its domain of holomorphy.
In 1884 Mittag–Leffler discovered that $H_e(G)$ is not empty. In 1933 Kierst and Szpilrajn [4] showed that for the unit disc $\mathbb{D}$ the above property is generic, in the sense that $H_e(\mathbb{D})$ is residual. Recently Kahane [3] and Bernal [1] have generalized this result to any domain G and to subspaces X of holomorphic functions on G satisfying some conditions. In particular X can be considered as the space $A^\infty(G)$ of boundary-regular holomorphic functions on G.
In 2005 Bernal, Calderón and Luh [2] prove that if G is a domain in the complex plane satisfying adequate topological or geometrical conditions then there exists a large (dense or closed infinite-dimensional) linear submanifold of $A^\infty(G)$ all of whose nonzero members are not continuable across any boundary point of G.

References

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[4] S. Kierst et E. Szpilrajn, Sur certaines singularités des fonctions analytiques uniformes, *Fund. Math.* **21** (1933), 267–294.