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Quelques propriétés des applications analytiques près d'un homéomorphisme. (French)

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Suppose that $\phi : V \rightarrow W$ is a homeomorphism between two (real or complex) analytic spaces. This paper is concerned with the question whether any analytic map $\psi : V \rightarrow W$ sufficiently close to ϕ must also be a homeomorphism. The author proves that if $\psi : V \rightarrow W$ is an algebraic map between complex projective varieties which induces an isomorphism on integral homology then ψ is an algebraic isomorphism. It is also proved that if ψ is an analytic map between connected compact real analytic spaces which induces an isomorphism on \mathbb{Z}_2 -homology and if ψ restricts to an isomorphism from $V - S$ to $W - \psi(S)$ for some proper analytic subspace S of V , then ψ is a homeomorphism.

Reviewer: [F.Kirwan](#)

MSC:

[32H99](#) Holomorphic mappings and correspondences

[32C15](#) Complex spaces

[14E05](#) Rational and birational maps

[32C05](#) Real-analytic manifolds, real-analytic spaces

[32J99](#) Compact analytic spaces

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real analytic space; analytic map; homeomorphism; complex projective varieties; algebraic isomorphism