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## Riemann's removable singularity theorem in several variables

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**Theorem.** *Suppose  $V$  is a proper analytic variety in an open set  $U \subset \mathbb{C}^n$  (that is of dimension at most  $n - 1$ ) suppose that  $f: U \setminus V \rightarrow \mathbb{C}$  is holomorphic and further that  $f$  is locally bounded in  $U$ . Then there exists a unique holomorphic extension of  $f$  to all of  $U$ .*

If  $V$  is of even lower dimension we can in fact even drop the locally bounded requirement, see the Hartogs extension theorem.

## References

- [1] Steven G. Krantz. , AMS Chelsea Publishing, Providence, Rhode Island, 1992.
- [2] Hassler Whitney. . Addison-Wesley, Philippines, 1972.