

[Łojasiewicz, Stanisław](#)

**Introduction to complex analytic geometry. (Wstęp do geometrii analitycznej zespolonej.)**  
(Polish) [Zbl 0773.32007](#)

Biblioteka Matematyczna. Państwowe Wydawnictwo Naukowe, Warszawa. 68. Warszawa: Państwowe Wydawnictwo Naukowe. 391 p. zł 600.00 (1988).

The book is an excellent introduction to the theory of complex analytic sets and spaces. The author presents a large amount of material, stressing the geometric aspects of the subject. The book assumes only a basic knowledge and includes the necessary background in three preliminary chapters: Algebra, Topology, and Complex analysis.

The main chapter titles are as follows: Rings of germs of holomorphic functions, Analytic sets, analytic germs and their ideals, Basic lemmas, Geometry of analytic sets, Holomorphic mappings, Normalization. The last and the longest chapter, Analyticity and algebraicity, shows various connections with the theory of complex algebraic varieties. For instance, it includes a complete proof of Zariski's theorem that the normalizations of a complex algebraic variety in the algebraic and analytic categories coincide.

The book is written tersely but clearly. All the statements have elementary and thorough proofs. The author intentionally omits the use of sheaves. The book includes no exercises.

The reviewer hopes that such an interesting book will be translated and become available to a wider readership.

**MSC:**

[32Bxx](#) Local analytic geometry

[32-02](#) Research exposition (monographs, survey articles) pertaining to several complex variables and analytic spaces

Cited in **3** Documents

**Keywords:**

[complex analytic spaces](#); [complex analytic sets](#)