

# Advanced Topics in Geometry F1 (MTH.B506)

Kotaro Yamada

`kotaro@math.titech.ac.jp`

<http://www.math.titech.ac.jp/~kotaro/class/2023/geom-f1/>

Tokyo Institute of Technology

2023/06/27 (Corrected: 2023/04/25)

## Comment

A counterexample which satisfies Cauchy-Riemann equation but is not holomorphic:

$$f(z) = \begin{cases} \exp(-1/z^4) & (z \neq 0) \\ 0 & (z = 0) \end{cases}$$