

# Global Analysis

## Differential forms in Analysis, Geometry und Physics

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We thank all colleagues who pointed out mistakes and misprints. Any more hints are welcome!

#### Known mistakes so far:

p. 6, l. -4: The volume form should be defined as  $\sigma_1 \wedge \dots \wedge \sigma_n$  independent of the signature, i.e. the factor  $(-1)^q$  should be discarded.

p. 30, l. 7 and 8: it should be twice  $dx^1 \wedge \dots \wedge dx^k$  (i.e., the upper index  $n$  should be  $k$ ).

p. 31, proof of Thm 7: same thing, every  $dx^n$  should be replaced by  $dx^k$ .

p. 32, l. 11: Integrate over  $[0,1]^{k+1}$  instead of  $[0,1]^k$ .

p. 33, l. 3 and 4: before the last integral sign in l.3 and the first integral sign in l.4, a factor  $(-1)^{j+\alpha}$  is missing.

p. 51, condition (2) of Thm 2: replace "bijective" by "injective".

p. 58, l. -1: the function "g" in this formula should be "h" (there is no function called g here).

p. 127, l. 13-15: in a), there is a typo, the equation should read  $(e^{2t} - x^2) + x dx/dt = 0$ . b) ist ok, c) should be deleted (not integrable by any elementary means).

p. 127, l. -3: Add the initial condition that  $A$  should coincide with a given matrix  $A_0$  for  $t=0$ ,  $A(0)=A_0$ .

p. 150, Theorem 13 (2): the second  $V_1$  in the subscript should be  $V_2$ .

p. 184, Theorem 42 (2): the second  $V_1$  in the subscript should be  $V_2$ .

p. 178, l. 7/9: replace "meridian" by "parallel circle" (translation mistake).

p.223, l. 16: "and equality holds if  $G$  is connected" (translation mistake).

p. 226, exercise 5: Add assumption that  $G$  is connected.

p.227, exercise 8 b): replace fraction by  $\frac{az+b}{\bar{b}z+\bar{a}}$  (the coefficients in the denominator should be interchanged).

Erratum to the errata: erratum to p. 51: please spell injective and bijective with "c" instead of "k" (copied from the German, presumably...)