

**ADDITIONAL ERRATA
TO THESIS AND RELATED PAPERS**

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Thesis.

- p.11, Eq.(23): add " $+o(\epsilon)$ " to middle term
- p.17, line 12: replace "end points of" by "less than n "
- p.17, lines 12 to 14: the words "which are ... roots or" should be replaced by "in $[-1, 1]$. But we can make"
- p.17, line 19: remove "Method number two ... first method"
- p.19, line 3: replace the factor $(1 + \epsilon\delta'(x_1))$ by $(1 + \epsilon\delta'(x))$
- p.25, line 6: replace " \rightarrow " by " \Rightarrow "
- p.25, middle, second line of remark 5: replace "0" by " $n/2$ "
- p.26, [C], second remark: replace " $|f^{(k)} - t|$ " by " $|f^{(k)}| - t$ "
- p.26, line 2 from below: replace "p.519" by "p.518"
- p.30, line 4 from below: replace "root-interval of f " by "root-interval of $f^{(k)}$ "
- p.32, line 10 from below: replace "exponential type at most $\tau > 0$ " by "positive exponential type at most τ "
- p.32, line 9 from below: replace " $f^{-1}(0) \subset \mathbb{R}$ " by " $f^{-1}(0) \subset \mathbb{R}$ and $f(\mathbb{R}) \subset [-1, 1]$ "
- p.33, line 1: replace it by
" $1 - f_n^2(0) = 1 - (f_n(x_n) + \frac{x_n^2}{2}f_n''(\xi_n))^2$, and"
- p.33, line 3: replace it by

$$\frac{(f_n'(0))^2}{1 - f_n^2(0)} \leq \frac{(f_n''(\xi_n))^2}{-f_n(x_n)f_n''(\xi_n) - \frac{x_n^2}{4}(f_n''(\xi_n))^2} \rightarrow -\frac{f''(0)}{f(0)} = 1/R_f(0),$$

- p.37, line 2: replace " f^2 is even" by
" f^2 is even with respect to some point (for instance $x = r_0$)"
- p.43, line 16: add, before the comma,
"(here and in the following we disregard the trivial subcase $f(z) = c \exp(az)$)"
- p.44, line 16: add, before the comma,
"for some sequence of x -values"

[A].

- p.49, first paragraph of the text, line 4:
 replace "2n real roots" by "2n roots in $[0, 2\pi)$ "
 p.56, line 5: after "all points" add "outside $[0, r)$ "
 p.56, line 6: replace " $0 < z \leq \pi$ " by " $r < z \leq \pi$ "
 p.56, line 9: replace " $0 < z < \pi$ " by " $r < z < \pi$ "

[B].

- p.300, fourth paragraph, line 3: replace "all 2n roots real"
 by "all the 2n roots in a period real"
 p.301, line 9: replace "either of the two" by "any of the two"
 p.305, line 7: replace " $|y| \leq \pi$ " by " $0 < y \leq \pi$ "
 p.306, line 7 from below: replace " ϕx " by " $\phi(x)$ "
 p.307, line 11 from below: remove "The exact value ... is positive"
 p.307, line 7 from below: a final right parenthesis is missing
 p.311, line 9: replace " $f'(x) < 0$ " by " $f'(x) > 0$ "
 p.313, line 1: replace "Assume that f has the form described as
 optimal in the theorem" by "But assume that f does not equal
 T_n or $-T_n$ "

[C].

- p.87, line 2 from below: after " $g = f + \epsilon F$ " add "(with $\epsilon > 0$)"
 p.88, lines 8 and 7 from below: at two occurrences, replace
 "a monotonicity interval" by "the graph corresponding to
 "a monotonicity interval"

[E].

- p.76, 3 lines after Eq.(10): add " $0 <$ " before " $f^2(r_m) \leq 1$ "
 p.77, Eq.(12): replace "=" by " \leq "

[F].

- p.515, 5 lines after Eq.(8): after "the value t " add
 "and with degree at most n . We cannot have a minimizing sequence
 $(f_m \mid m \in \mathbb{N})$ converging towards the constant function $f = t$,
 since (see Eq.(3)) $g_{f_m} \mid I > 0$ for m large enough. In
 the following, $n \geq 1$ is the degree of the minimizing function f ."
 p.515, Eq.(9): replace "=" by " \leq "
 p.515, line 11 from below: replace " $(F(r))$ " by " $F(r)$ "
 p.516, Eq.(9'): replace "=" by " \leq "
 p.518, 3 lines after Eq.(15): after "value t " add
 "and with degree at most n . We cannot have a maximizing
 sequence $(f_m \mid m \in \mathbb{N})$ converging towards the constant
 function $f = t$ since $M_{t,f} = \emptyset$ for this function and a
 neighbourhood of it."
 p.518, Eq.(16): replace "=" by " \geq "
 p.519, Eq.(16'): replace "=" by " \geq "

[G].

p.450, line 7 from below: replace " $t \in \{\max \dots\}$ " by " $|t| = \max |f|([a_j, b_j])$ "

p.451, line 1: replace " F_j is a continuous functional" by " F_j is an upper semicontinuous functional"

p.451, line 5: replace " $|x_1| \leq |x_2|$ " by " $|x_1| < |x_2|$ "

p.451, line 5: remove " $|x_1| < |x_2|$, and that"

p.451, last line: replace " $r < x \leq \pi$ " by " $r < x < \pi + r$ "

p.452, line 3 from below: add after the line, "(if $f'''(r) \neq 0$)"

p.452, last line: add, after the line: "if $f'''(r)$ were 0, some variation would result in $f'''(r)/f''(r) < 0$ for a neighbouring function (increase left bump if its distance is less than π ; otherwise decrease remaining bumps)"