CORRECTIONS TO GALLEY PROOFS

Paper: MATCOM 2685
Author: C. G. S. Cardoso et al.
Title: Finite Elements on Dyadic Grids with Applications

QUERY FORM ITEMS

- Affiliations: Author affiliations are correct, but the first (starred) footnote needs fixing:
  · **CAPITALIZE** "IC-Unicamp" $\Longrightarrow$ "IC-UNICAMP".
  · **REPLACE** "(C.G.S. Cardoso)" $\Longrightarrow$ "(Jorge Stolfi)".
  · **DELETE** extra period at end of line.
- Keywords:
  · **DELETE** "dyadic grids; ".
  · **DELETE** "numerical integration; ".
- Section 3.1.3, para 3: the formula needs fixing; see below.
- Section 5.1, para 4, line 228: the figure reference should indeed be "Fig. 5(b)".
- Author initials in references:
  1 "Khalid Aziz" $\Longrightarrow$ "K. Aziz".
  3 "Achi Brandt" $\Longrightarrow$ "A. Brandt".
  4 "Cláudio Guido Silva Cardoso" $\Longrightarrow$ "C. G. S. Cardoso".
  5 "Melvin Ciment, Ronald A. Sweet" $\Longrightarrow$ "M. Ciment, R. A. Sweet".
  8 "Carl W. Gable, Harold E. Trease, Terry A. Cherry" $\Longrightarrow$ "C. W. Gable, H. E. Trease, T. A. Cherry".
  11 "Martin J. Mlacnik, Andreas W. Harrer, Heinemann, Zoltán E." $\Longrightarrow$ "M. J. Mlacnik, A. W. Harrer, Z. E. Heinemann".
  15 "Eric J. Stollnitz, Tony D. DeRose, David H. Salesin" $\Longrightarrow$ "E. J. Stollnitz, T. D. DeRose, D. H. Salesin".
  16 "Santosh Verma, Khalid Aziz" $\Longrightarrow$ "S. Verma, K. Aziz".
  17 "Robert Vichnevetsky" $\Longrightarrow$ "R. Vichnevetsky".

1 SYTEMATIC ERRORS

- The symbol "$\mathbb{T}^d$" was typeset as "^{d}" in a few places:
  · Line 151: after "denoted by": "$\mathbb{T}^d$".
  · Line 187: after "from": "$\mathbb{T}^d$".
  · Line 195: after "domain": "$\mathbb{T}^d$".
  · Line 216: beginning of line: "$\mathbb{T}^1$" (note: superscript 1 not d).

- Line 232: after "torus": "$\mathbb{T}^d$".
- Line 240: after "$x \in$ ": "$\mathbb{T}^d$".
- Line

- The symbol "$\mathcal{P}$" was omitted in many formulas such as $\mathcal{P}^g$, $\mathcal{P}^g_c$, etc., leaving only the subscripts and superscripts:
  - Line 190: after "by": "$\mathcal{P}^g[G]$".
  - Line 193(1): after "by": "$\mathcal{P}^g_c[G]$".
  - Line 193(2): after "from": "$\mathcal{P}^g[G]$".
  - Line 195(1): after "Note that": "$\mathcal{P}^g[G] \supseteq \mathcal{P}^g_c[G]$".
  - Line 195(2): after "and" "$\mathcal{P}^g_{c'}[G] \supseteq \mathcal{P}^g_{c''}[G]$".
  - Line 196(1): after "define": "$\mathcal{P}^g_{-1}[G]$".
  - Line 196(2): after "for": "$\mathcal{P}^g[G]$".
  - Line 198: after "spline in": "$\mathcal{P}^g[G]$".
  - Line 199: after "splines in": "$\mathcal{P}^g_c[G]$".
  - Line 202: after "space": "$\mathcal{P}^g_c[G]$".
  - Line 204: after "from": "$\mathcal{P}^g_c[G]$".
  - Line 211: after "space": "$\mathcal{P}^g_c[G]$".
  - Line 218: after "space": "$\mathcal{P}^1_0[G]$".
  - Line 222: after "space": "$\mathcal{P}^3_1[G]$" (note: subscript 1 not 2).
  - Line 234(1): after "space": "$\mathcal{P}^g_c[G]$".
  - Line 234(2): after "spaces": "$\mathcal{P}^g_c[G_i]$" (note: brackets not parens).
  - Line 243: after "space": "$\mathcal{P}^1_0[G]$".
  - Line 244: after "spline of": "$\mathcal{P}^1_0[G]$".
  - Line 245: after "space": "$\mathcal{P}^1_0[G]$".
  - Line 247: after "space": "$\mathcal{P}^3_1[G]$".
  - Line 248: before "is determined": "$\mathcal{P}^3_1[G]$".
  - Line 249: after "basis for": "$\mathcal{P}^3_1[G]$".
  - Line 257: after "basis for": "$\mathcal{P}^1_0[G]$".
  - Line 258(1): after "basis of": "$\mathcal{P}^1_0[G]$".
  - Line 258(2): after "the space": "$\mathcal{P}^1_0[G]$".
  - Line 268: after "whole space": "$\mathcal{P}^g_c[G]$".
  - Figure 7, caption: after "basis of": "$\mathcal{P}^1_0[G]$".
  - Line 291: after "a space": "$\mathcal{P}^g_c[G]$".
  - Line 309: after "the space": "$\mathcal{P}^g_c[G]$".
  - Line 311: after "the space": "$\mathcal{P}^g_c[G]$".
  - Line 315: after "spline of": "$\mathcal{P}^g_c[G]$".
  - Line 332: after "of space": "$\mathcal{P}^1_0[G]$".
  - Line 341: after "the space": "$\mathcal{P}^g_c[G]$".
  - Line 342: after "spline of": "$\mathcal{P}^g_c[G]$".
  - Line 346: after "basis of": "$\mathcal{P}^g_c[G]$".
  - Line 348: after "a space": "$\mathcal{P}^g_c[G]$".
  - Figure 8, caption: after "the space": "$\mathcal{P}^1_0[G]$".
  - Line 393: after "splines": "$\mathcal{P}^1_0[G]$".
  - Figure 9, caption: after "basis of": "$\mathcal{P}^1_0[G]$".
  - Line 407: after "from": "$\mathcal{P}^1_0[G]$".

· Line 490: after "space": "$\mathcal{P}_0^1[G]$".

OTHER ITEMS

- Line 11:
  · **REPLACE** "a hierarchic mesh" $\Longrightarrow$ "a d-dimensional hierarchical mesh".
- Line 12:
  · **REPLACE** "k mod m" $\Longrightarrow$ "k mod d"
- Line 79:
  · **DELETE** "dyadic" at end of line.
- Line 80:
  · **REPLACE** "grids" $\Longrightarrow$ "and" at beginning of line.
  · **REPLACE** "than," $\Longrightarrow$ ";" after "economical".
- Line 95:
  · **REPLACE** "we show the use" $\Longrightarrow$ "we describe the use".
- Line 110:
  · **REPLACE** "stab" $\Longrightarrow$ "stabs".
- Line 114:
  · **INSERT** period after "endpoint".
- Line 138:
  · **REPLACE** "$2^{(r-i-1)/d}$" $\Longrightarrow$ "$2^{\lceil (r-i)/d \rceil}$".
- Line 140:
  · The cross "$\times$" at the beginning of the line should be set in a bigger fontsize.
- Line 145:
  · **REPLACE** "isotropic it can be" $\Longrightarrow$ "isotropic as it can be".
- Line 146:
  · **DELETE** "$= 2^{-(i/d+(r-1-i)/d}$" at end of line.
- Line 150:
  · **DELETE** "still" before "has a neighborhood".
- Line 162:
  · **REPLACE** "$(_0, \ldots, _d)$" $\Longrightarrow$ "$(\delta_0, \ldots, \delta_{d-1})$".
- Line 164:
  · Before "ranges", **REPLACE** orphan "$_i$" $\Longrightarrow$ "δ_i".
  · After "from", **DELETE** "$= 2^{(r-1-i)/d} - 1$".
- Line 166:
  · Before "bits", **REPLACE** "$(r-1-i)/d$" $\Longrightarrow$ "$\lceil (r-i)/d \rceil$".
- Line 167:
  · **REPLACE** "is bit $2^{j/d}$" $\Longrightarrow$ "is bit $2^{\lfloor j/d \rfloor}$".
- Line 168:
  · **REPLACE** "$_{(r-j) \bmod d}$" $\Longrightarrow$ "$\delta_{(r-j) \bmod d}$".
  · **REPOSITION** the "2" that is currently below the 0010 string as a subscript of that string.

- Line 222:
  · **REPLACE** "$\mathcal{P}_2^3[G]$" $\Longrightarrow$ "$\mathcal{P}_1^3[G]$".
- Line 234:
  · At end of line, **REPLACE** "$\mathcal{P}_c^g(G_i)$" $\Longrightarrow$ "$\mathcal{P}_c^g[G_i]$".
- Line 254:
  · **REPLACE** "for every level ${}_c^g[\mathcal{G}]_r^d]$" $\Longrightarrow$ "for the space $\mathcal{P}_c^g[\mathcal{G}_r^d]$, for every level $\mathcal{G}_r^d$".
- Figure 7, caption:
  · **REPLACE** "for finite" $\Longrightarrow$ "for a finite".
- Line 304:
  · **REPLACE** "Inter" (roman) $\Longrightarrow$ "*Inter*" (italic).
- Line 377:
  · **BREAK** the line before "and".
- Line 390:
  · **REPLACE** "$\langle f\phi_i\rangle$" $\Longrightarrow$ "$\langle f \mid \phi_i\rangle$".
- Line 391:
  · **REPLACE** "$\langle\phi_i\phi_j\rangle$" $\Longrightarrow$ "$\langle\phi_i \mid \phi_j\rangle$".
- Line 393:
  · **REPLACE** "emasured" $\Longrightarrow$ "measured".
- Line 407:
  · **REPLACE** "approximated" $\Longrightarrow$ "approximate".
- Line 429:
  · After "inefficient", **REPLACE** ", " by " (".
- Line 430:
  · After "sizes", **REPLACE** ", " by ") ".