

**Errata to the proceedings volume
"Recent Perspectives in Random Matrix Theory and Number Theory"**

Fyodorov -

In the bottom of p.39 there is a footnote. In this footnote second sentence

should start as: "For any $0 < t < 2\pi$ and ..."

(currently it starts not accurately enough as: "For any positive $t > 0$ and...\$).

reference [30] is now published: Vanlessen, M., "Universal behavior for averages of characteristic polynomials at the origin of the spectrum", COMMUN MATH PHYS 253 (3): 535-560 FEB 2005

Goldston -

[4] J.B Conrey, D.W. Farmer, ... (authors and title as currently written), Proc Lond Math Soc. Vol. 91 Part 1 July 2005 pages 33-104

Conrey 1 -

Page 125, in paragraph after equation (6.3) D should be multiplied by 2π , so it should read $D = 2\pi S_N(0) = 2\pi N\zeta$.

Page 129, first equation of equation (7.1) should be multiplied by N

Page 140, remove the z^n in the right hand side of the first equation on the page

Page 140, put a period after the last equation on that page and delete the following words "for each j".

Farmer -

Page 185, 4th line of introduction, missing word "we"
(Along the way we discuss...)

Page 195, formula 7.2, there should be a square on the binomial coefficient: $a_k = \prod_p (1-1/p)^{k^2} \sum_{m=0}^{\infty} (\binom{k+m-1}{m})^2 p^{-m}$

Page 199, the formula numbers (9.3) and (9.4) are in the middle of the display, not on the right side. The numbers can be eliminated. (or moved, but there is no need for them).

Gonek -

Page 203, the final expression in the equation before section 3 should be $\frac{1}{2} \log \left(\frac{1}{T} \int_0^T |f(\sigma+it)|^2 dt \right)$

Page 203, no hyphen in "zeta function" on the last line

Page 207, no new line after "namely," in the second to last paragraph of the page

Page 212, the exponent on $(1+h/n)$ should be $-\sigma$ rather than σ in the last line on the page

Page 215, there should be no "known" in the line before Theorem 8.1

Page 218, remove completely the sentence "Indeed, even guessing the value of ζ_k has been a very difficult problem" from the paragraph before Conjecture 1.

Keating -

[5] J.B Conrey, D.W. Farmer, J.P. Keating (authors and title as currently written), Proc Lond Math Soc. Vol. 91 Part 1 July 2005 pages 33-104

Basor -

Page 310, better if the bracket "(usually denoted by l^2)" were all on one line at the end of the paragraph after equation 1.1

Page 324, at the end of the first line of the first equation on the page and again in the equation after "By assumption" the tilde on $g\phi$ should be larger and cover both letters. The correct format is in the equation after "are trace class, and since trace class operators for an ideal, the products" (also on the same page)

Page 328, the second to last equation before section 3 is garbled because the first character in the equation " \mathcal{K} " needs to be " $\{\mathcal{K}\}$ ". The equation should read " $\{\mathcal{K}\} = \{k, |\cdot|, \text{Re } Q(k) = Q \}$."

Update reference [17]: P.J. Forrester, N.E. Frankel. "Applications and generalizations of Fisher-Hartwig asymptotics" J MATH PHYS 45 (5): 2003-2028 MAY 2004

Rubinstein -

1) page 433, third line of the last paragraph. Change

$$N \sim 10 |s|^{1/2}$$

To

$$N \sim |10s/(2\pi)|^{1/2}$$

In latex it should be

$\$N\sim |10s/(2\pi)|^{1/2}\$$

2) page 477, caption for figure 3. Replace

"Recently, Bogomolny, Bohigas and Leboeuf"

with

"Recently, Bogomolny, Bohigas, Leboeuf and Monastra"

3) Some of the references are no longer preprints.

page 500, [CFKRS]:

replace: "preprint" with

$\backslash\text{jour Proceedings of the London Mathematical Society,}$
 $\{\backslash\text{bf 91}\}$ (2005), 33--104.

page 500, [CFS]:

replace "preprint" with

$\backslash\text{jour Int. Math. Res. Notices }\{\backslash\text{bf 7}\}$ (2005), 397--431

page 501, [Do]:

replace: "preprint" with

$\backslash\text{jour Experimental Mathematics, }\{\backslash\text{bf 13}\}$ (2004), no.~2, 137--149

4) address is typset incorrectly on page 506:

replace "Faculty of Mathematics" with "Pure Mathematics"

and replace "NL2 3G1" with "N2L 3G1".

5) This would move material around from page 505 to 504 and vice

versa, so it might not be possible to do, but

the [RS] entry in the references should go after the [Ru4] entry and

the [RudS] entry

should go after the [Rud] entry.

6) Page 500. The reference [CFZ] on page 500 is now

two papers by Conrey, Farmer, Zirnbauer (call them [CFZ1] and [CFZ2]):

"Howe pairs, supersymmetry, and ratios of random characteristic
polynomials for the classical compact groups"

and

"Autocorrelation of ratios of L -functions"

Both are preprints.

They are referenced on page 491 (three lines above section 4.4.1) where
the current [CFZ] should be [CFZ1,CFZ2].

FOOTNOTES:

Page 93: no space after "form factor" in footnote 4

Page 94: in footnote 7 where it says equation 4.19 it should be 4.18 and where it says 6.5 it should be 6.4 (all the other page and equation numbers are correct)

Page 186: footnote 1, it should say "...lectures by D.R. Heath-Brown, starting on page 1, Section..." i.e. instead of the "1" after Heath-Brown there should be ", starting on page 1,"

Page 190: It should say "...contribution of D.R. Heath-Brown, page 1, Theorem 8." i.e. a comma and "page" are missing

Page 195: in BOTH footnote 3 and 4 it should be "...Heath-Brown, page 1, ..." i.e. the word "page" is missing as well as the commas on either side of ", page 1" in BOTH footnotes

Page 256: comma needed after "D.A. Goldston, page 79" in footnote 1

Page 281: should be "D.R. Heath-Brown, page 1, after..." i.e. it's missing a dot after D.R and a comma and "page" after Heath-Brown.

Page 287: instead of "and in particular (4.19)" it should be "and in particular Section 4"

Page 450: in footnote 2 there is an upside down question mark instead of a period after "lectures of D.R"

INDEX:

There are double entries for

- a) Euler totient function
- b) phi (alphabetically this is listed as "phi" but it appears as a greek letter phi)
- c) Ramanujan's tau-function $\tau(n)$ and the two subheadings
 - L-function
 - quadratic twist L-function

INTRO:

There are two dates (both July 2004) at the end of the introduction, page ix. One should be removed.