Addenda and Corrigenda to Chapter 8, *Local Operator Theory, Random Matrices and Banach Spaces* by K. R. Davidson and S. J. Szarek

1. P. 346, the *Added in proof* section:

(i) The paper [1a], which is a revised version of [105], has been circulated in the meantime; it contains additionally some concentration results for not-necessarily-extreme eigenvalues.

(ii) More precise (but still presumably far from optimal) results in the same direction as [1a] were obtained in [7a].

2. P. 346, inequality (4): a factor $1/L$ in the middle expression is missing. It should read

$$\mathcal{P}\,(F \geq M + t) \leq 1 - \Phi(t/L) < \exp\left(-t^2/2L^2\right)$$

3. P. 349, Theorem 2.8: more quantitative results (i.e., estimates valid for any dimension rather than in the limit) were obtained in [2a] and [6a]. In particular, some of the results of [6a] do not require that the distribution of the entries be Gaussian.

4. P. 352, inequality (11): a factor $\sqrt{n}$ in the middle expression is missing. It should read

$$\mathcal{P}\,(F \geq 2 + \sigma t) < 1 - \Phi(t\sqrt{n}) < \exp\left(-nt^2/2\right),$$

5. P. 353, Theorem 2.13: a factor $\sqrt{n}$ in the middle expression in the second displayed formula is missing. It should read

$$\begin{aligned} \max\left\{\mathcal{P}(s_1(\Gamma) \geq 1 + \sqrt{\beta} + t),\ \mathcal{P}(s_m(\Gamma) \leq 1 - \sqrt{\beta} - t)\right\} &< 1 - \Phi(t\sqrt{n}) \\ &< \exp\left(-nt^2/2\right) \end{aligned}$$

6. P. 354, Problem 2.14: the existence of the limit was proved in [3a].

7. P. 357, Problem 2.18: solved in the affirmative in [4a].

8. The book [5a], and particularly its section 8.5, overlaps and complements the material presented in Section 2 of the Chapter.

New references

[1a] N. Alon, M. Krivelevich and V. H. Vu, *On the concentration of eigenvalues of random symmetric matrices,* Israel J. Math., to appear.

[2a] G. Aubrun, *A small deviation inequality for the largest eigenvalue of a random matrix,* preprint 2002.

[3a] F. Guerra and F. L. Toninelli, *The Thermodynamic Limit in Mean Field Spin Glass Models,* Commun. Math. Phys. **230** (2002) 1, 71-79.

[4a] U. Haagerup and S. Thorbjornsen, *A new application of random matrices:* $\mathrm{Ext}(C_r^*(F_2))$ *is not a group,* private communication.

[5a] M. Ledoux, *The concentration of measure phenomenon,* Mathematical Surveys and Monographs **89**, Amer. Math. Soc., Providence, RI, 2001.

[6a] M. Ledoux, *A remark on hypercontractivity and tail estimates for the largest eigenvalues of random matrices,* preprint 2002.

[7a] M. Meckes, *Concentration of norms and eigenvalues of random matrices,* preprint 2002.