NOTES ON RANDOM MATRICES

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(notes by (STUDENTS IN MATH 8380 COURSE))

CONTENTS

(ON THE TEX STYLE)

1. Please do not define and use any `\newcommand` commands!

2. Try to be consistent — use environments provided:

```
\begin{theorem}\label{thm:example}
        A theorem.
\end{theorem}
\begin{proof}[Idea of proof]
        And here is an equation:
        \begin{align*}
                a^2+b^2=c^2.
        \end{align*}
        This concludes the proof.
\end{proof}
```

The above code produces:

⟨thm:example⟩ **Theorem 0.1.** *A theorem.*

Idea of proof. And here is an equation:

$$a^2 + b^2 = c^2.$$

This concludes the proof. □

Use `align` or `multline` for displayed equations.

3. Full list of theorem environments defined:

```
\newtheorem{proposition}{Proposition}[section]
\newtheorem{lemma}[proposition]{Lemma}
\newtheorem{corollary}[proposition]{Corollary}
\newtheorem{theorem}[proposition]{Theorem}
\newtheorem{definition}[proposition]{Definition}
\newtheorem{remark}[proposition]{Remark}
\newtheorem{example}[proposition]{Example}
\newtheorem{exercise}[proposition]{Exercise}
```

4. Use `\note` command to insert notes: (THIS IS A NOTE).

5. Use understandable labels for theorems and equations, and reference them by using `\ref` or `\eqref`, see Theorem 0.1. Little hints will appear in the PDF file, this should help you.

6. Bibliography links can be inserted using the `\cite` command. I am using a single huge BiBTeX file which is here `https://github.com/lenis2000/BiBTeX/blob/master/bib.bib`. If something is not in that file, leave a note. Example: command

```
\cite{AndersonGuionnetZeitouniBook}
```

produces citation [AGZ10].

7. You can email me your TEX files (in which case take my preamble and put your text into it), or alternatively you can use GitHub's pull requests mechanism (`https://help.github.com/articles/using-pull-requests/`).

1. Introduction

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References

ZeitouniBook [AGZ10] G.W. Anderson, A. Guionnet, and O. Zeitouni, *An introduction to random matrices*, Cambridge University Press, 2010.

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