## NOTES ON GRADING QUIZ 1

Since many of you complained about lack of time during the quiz and since the grades obtained by usual summation were somewhat lower than expected, we decided to adapt them by using the following computation.

Let $w_{i}$ be the weight of the $i$-th question, i.e. $w_{1}=w_{2}=20 \%$ and $w_{3}=w_{4}=30 \%$. Let $g_{i}$ be the grade for the solution of the $i$-th question. Then $0 \leq g_{i} \leq s_{i}$. The usual grade is computed as

$$
G=g_{1}+g_{2}+g_{3}+g_{4}
$$

We wanted to take into account the complaint of lack of time, therefore we decided to consider only the best three questions. However, since some combinations of three questions are worth $80 \%$ and others only $70 \%$, we proceed as follows; we set $F_{i}=0 \%$ for $i=1,2$ and $F_{i}=33.33 \%$ for $i=3,4$ and compute

$$
G_{i}=\frac{G-g_{i}}{100 \%-w_{i}} \cdot\left(1-F_{i} w_{i}\right)+F_{i} \cdot g_{i}
$$

( $G_{i}$ is the adapted grade when we "ignore" the answer to question $i$ ). The final grade is set to $\tilde{G}=\max _{1 \leq i \leq 4} G_{i}$.

Note that $0 \leq \tilde{G}-G \leq 20 \%$ so that one can gain up to 20 points compared to the standard grade.

