1. Remarks on Lemma 11.5 and Theorem 11.3. First of all, there is a typo in the statement of the Lemma 11.5: the intervals, denoting the region of integration in the last line of p. 321 should be $[0,t]$ instead of $[0,x]$.

In the proof of Lemma 11.5 the references to (11.24) and (11.25) on the 7th and 14th line should be replaced by a reference to (11.27).

Next, the function ϕ_{nj} in (11.29) reaches its *minimum*, not its *maximum* at the point given below (11.29). Similarly, "maximum" should be changed to "minimum" in Exercise 11.5. Note, however, that this does not invalidate the argument; this is the usual computation if one looks for large deviation bounds, using exponential centering (compare, e.g., with the way large deviation probabilities of means of normal random variables are computed, using the moment generating function and Markov's inequality).

More serious is that the inequality $\log(1+x) \le x$ is introduced in the 5th line from below on p. 325. This inequality goes the wrong way here (as was pointed out to us by Eni Musta). The correct line of argument runs as follows.

Following Pollard (1984), in his discussion of Bennett's inequality on p. 192, we introduce the function B, defined by $B(0) = 1/2$ and

$$B(u) = u^{-2}\{(1+u)\log(1+u) - u\}, \qquad u > 0. \tag{1}$$

Note that this is the same function as the function B in Pollard (1984), p. 192, apart from a factor 2. Making the change of variables $u_j = ct_j/(4c_1)$, we can write:

$$\phi_{nj}(\theta_{nj}) = -\frac{8nc_1^2u_j^3}{c}B(u_j).$$

Since t_j can only belong to the interval $[0,M]$, u_j also varies over a finite interval $[0,M']$, and therefore $B(u_j)$ stays away from zero on $[0,M']$ (note that the probability on top of p. 322 is zero if j is such that $(j-1)n^{-1/3}$ leads to values of $U(a)+y$ outside $[0,M]$).Therefore,

$$\phi_{nj}(\theta_{nj}) \le -c'(j-1)^3,$$

for a positive constant c'. The remaining part of the argument runs as before.

In the proof of the ensuing Theorem 11.3, $x \in [(i-1)n^{-1/3}, in^{-1/3}]$ in the second line from below on p. 326 should be changed to: $x \in (i-1, i]$.

Note that the boundedness of the interval $[0,M]$ plays an important role in the argument and that the function B will enter into the upper bound if the support of f_0 is infinite. However, the L_p bounds deduced from the theorem might continue to hold in that case.

References.

Pollard, D. (1984). *Convergence of stochastic processes. Springer Series in Statistics.* Springer-Verlag, New York. MR762984 (86i:60074)