

Correction to Lemma 3.5 in the paper [P. Poláčik, Estimates of solutions and asymptotic symmetry for parabolic equations on bounded domains, Arch. Rational Mech. Anal. 183 (2007), 59-91].

1) The last sentence in Lemma 3.5 should be modified as follows:

If  $v$  is a solution of (3.22), then the conclusion holds with  $p = \infty$  and with  $\kappa, \kappa_1$  independent of  $\varepsilon$ , if one replaces  $g^-$  in (3.23) with  $g$ .

2) The following text should be added at the end of the proof of Lemma 3.5.

To prove the statement regarding a solution  $v$  of (3.22), the above proof can be adapted as follows. First assume the extra regularity assumptions on  $U$  and  $a_{ij}$ , as above. With  $v_1, v_2, v_3$  defined as before, also write  $v_1 = v_{11} + v_{12}$ , where  $v_{11}$  solves the homogeneous equation (3.9) and is equal to  $v_1$  on  $\partial_P(U \times (\tau, \tau_4))$ , and  $v_{12}$  solves the nonhomogeneous equation

$$v_t = a_{ij}(x, t)v_{x_i x_j} + b_i(x, t)v_{x_i} + c(x, t)v + g^+(x, t), \quad (x, t) \in U \times (\tau, \tau_4),$$

and is equal to 0 on  $\partial_P(U \times (\tau, \tau_4))$ . Then both  $v_{11}$  and  $v_{12}$  are nonnegative by the maximum principle. In the estimate below, we apply the Krylov-Safonov Harnack inequality (with  $p = \infty$ ) to  $v_{11}$ , and to  $v_{12}$  we shall apply the Alexandrov-Krylov estimate:

$$\sup_{U \times (\tau, \tau_4)} |v_{12}| \leq \kappa_2 \|g^+\|_{L^{N+1}(U \times (\tau, \tau_4))}.$$

The final estimate on  $v$  now goes as follows

$$\begin{aligned} v(x, t) &= v_{11}(x, t) + v_{12}(x, t) + v_2(x, t) + v_3(x, t) \\ &\geq v_{11}(x, t) + v_2(x, t) + v_3(x, t) \\ &\geq \kappa \sup_{D \times (\tau_1, \tau_2)} v_{11} - e^{m(\tau_4 - \tau)} \sigma - \kappa_1 \|g^-\|_{L^{N+1}(U \times (\tau, \tau_4))} \\ &= \kappa \sup_{D \times (\tau_1, \tau_2)} (v_1 - v_{12}) - e^{m(\tau_4 - \tau)} \sigma - \kappa_1 \|g^-\|_{L^{N+1}(U \times (\tau, \tau_4))} \\ &\geq \kappa \sup_{D \times (\tau_1, \tau_2)} v_1 - \sup_{D \times (\tau_1, \tau_2)} v_{12} - e^{m(\tau_4 - \tau)} \sigma - \kappa_1 \|g^-\|_{L^{N+1}(U \times (\tau, \tau_4))} \\ &\geq \kappa \sup_{D \times (\tau_1, \tau_2)} v^+ - \kappa_2 \|g^+\|_{L^{N+1}(U \times (\tau, \tau_4))} - e^{m(\tau_4 - \tau)} \sigma - \kappa_1 \|g^-\|_{L^{N+1}(U \times (\tau, \tau_4))} \\ &\geq \sup_{D \times (\tau_1, \tau_2)} v^+ - (\kappa_1 + \kappa_2) \|g\|_{L^{N+1}(U \times (\tau, \tau_4))} - e^{m(\tau_4 - \tau)} \sigma. \end{aligned}$$

Now one can remove the restrictions on  $U$  and  $a_{ij}$  as above.