

CORRECTION TO
"ON THE GROWTH OF SOLUTIONS OF SEMI-LINEAR
DIFFUSION EQUATION WITH DRIFT"

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The statement on lines 16 to 20 of page 282 is incorrect in the case when $\mu > 0$. In fact there exists no travelling wave if $F=0$ in $(0, \mu_1)$ with $0 < \mu_1 < \mu$ and $\int_0^1 F(u)du=0$, as being pointed out in [1] (the Remark of page 342). Here (and below) we mean by a travelling wave a solution of (9) on R^1 with (10). As a consequence of the error, following alterations are needed.

1. The statements in (a) of Theorem 1 and in (iii) of § 2 (in the latter the non-increasingness of w_1 should be assumed) remain valid if c_0 is redefined as the supremum of c 's for which there exists a solution of $w''+cw'+F(w)=0$ on $(-\infty, 0]$ with $w(-\infty)=1$ and $w(0)=0$. (If a travelling wave exists (for some c) this supremum agrees with the originally defined c_0 .)

2. The statements in (d) of Theorem 1 and (v) of § 2 are true if the existence of a travelling wave is further assumed. (The proof of (d) of Theorem 1 must be slightly modified in the case when $c_0 \leq 0$ and $F'(0)=0$.) It is sufficient for the existence of a travelling wave to add the condition

$$\int_0^1 F(u)du > 0; \text{ or } F(u) < 0 \quad \text{for } 0 < u < \mu$$

to the basic assumptions for F (cf. [1]).

3. The statement in (ii) of § 2 should be read as follows:
If $\mu > 0$ and there exists a decreasing solution of (9) on R^1 with (10), then $c=c_0$.

Besides these corrections above, there are ones to typographical errors:

4. In the assumption of Theorem 4, the inequality $\kappa < c^*$ should be reversed.

5. On the line 5 of page 291, the inequality $\tilde{u}_1 \geq u_1$ should be reversed.

References

- [1] P.C. Fife and J.B. McLeod: *The approach of solutions of nonlinear diffusion equations*, Arch. Rational Mech. Anal. **65** (1977), 333–361.

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