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Updates of references

- [3] vol. **360** (2008), 3493-3539
- [34] vol. **15** (2008), 69-90
- [109] vol. **68** (2008), 1860-1867
- [112] vol. **68** (2008), 862-874
- [125] vol. **68** (2008), 621-628
- [132] vol. **30** (2007), 251-275
- [155] vol. **253** (2007), 241-272
- [191] J. Math. Anal. Appl. **340** (2008), 401-409
- [202] vol. **10** (2008), 105-132
- [204] vol. **340** (2008), 477-496
- [205] M. Fila, M. Winkler and E. Yanagida, *Convergence to self-similar solutions for a semilinear parabolic equation*, Discrete Contin. Dyn. Syst. **21** (2008), 703-716
- [263] vol. **20** (2008), 927-937
- [288] Comm. Appl. Anal. **8** (2009), 1351-1371
- [423] *Asymptotic behavior of threshold and sub-threshold solutions of a semilinear heat equation*, Asympt. Anal. **57** (2008), 125-141
- [424] pages 555-579
- [443] vol. **21** (2008), 307-318
- [444] P. Quittner, *Qualitative theory of semilinear parabolic equations and systems*, Topics on Partial Differential Equations, Lecture notes of the Jindřich Nečas Center for Mathematical Modeling, Vol. 2, eds. P. Kaplický and Š. Nečasová, Matfyzpress, Praha, 2007, pp. 159-199.
- [492] pages 819-823
- [493] vol. **11** (2009), 169-188
- [537] vol. **68** (2008), 1844-1859

Errata

- p. x, l. -9: Replace “omission.)” with “omission).”.
- p. 21, l. -4: Remove the word “stationary”.
- p. 29, l. 8-9 in Section 7: Replace  $A_0 = (0, -2)$ ,  $A_1 = (0, 2)$  with  $A_1 = (0, -2)$ ,  $A_2 = (0, 2)$ .
- p. 33, l. 20: Replace “ $\nabla E(u) = u + \mathcal{F}_1(u)$ ” with “ $\nabla E(u) = u - \mathcal{F}_1(u)$ ”.
- p. 34, l. -6: Replace  $q$  with  $(q + 1)$ .
- p. 35, l. 1: Replace  $C_6 = (4^p C_4)^{-1/(p-1)}$  with  $C_6 = (4C_4)^{-2/(p-1)}/4$ .
- p. 44, (8.25): Replace the last inequality sign with the equality sign.
- p. 44, lines -4 and -7: Insert  $C$  after the inequality signs.
- p. 46, line 6: Replace “ $\geq$ ” with “ $\leq$ ”.
- p. 47, (8.29): Replace  $x$  with  $z$ .
- p. 48, lines -14,-11,-9: Replace  $B_{\bar{\mu}/2}$ ,  $B_{\bar{\mu}/4}$  and  $\bar{\mu}$  with  $B_{|\bar{\mu}|/2}$ ,  $B_{|\bar{\mu}|/4}$  and  $|\bar{\mu}|$ , respectively.
- p. 53, last line: Add “An explicit proof of Theorem 9.1 can be found in [X. Wang, *On the Cauchy problem for reaction-diffusion equations*, Trans. Amer. Math. Soc. **337** (1993), 549-590].”.

- p. 63, l. 7: Replace  $v^p$  and  $v$  with  $u^p$  and  $u$ , respectively.
- p. 66, l. 4: Replace  $(p+1)/(p-1)$  with  $-(p+1)/(p-1)$ .
- p. 69, l. -5: Replace “, we obtain” with “and denoting by  $y(\eta)$  any point in  $\partial\Omega$  such that  $\nu(y(\eta)) = \eta$ , we obtain”
- p. 69, l. -1 and p. 70, l. 8: Replace  $[0, \lambda_0]$  with  $[0, \varepsilon]$ .
- p. 111, l. -4: Replace  $v_\varepsilon(0, t)$  with  $v_\varepsilon(0, t - t_0)$ .
- p. 113, line 5: Replace “ $\|u_0\|_\infty \leq \eta$ ” with “ $\|u_0\|_\infty \leq \bar{\eta}$ ”.
- p. 145, lines 8,9: Add the missing factor “ $p$ ”.
- p. 154, line 1: Insert “(ii)” at the beginning of the line.
- p. 158, the last line in the proof of Lemma 21.11: Replace “for  $\varepsilon > 0$  small” with “for suitable  $\varepsilon > 0$ ”.
- p. 159, lines 15 and 20: Replace  $\mathbb{R}^n$  and  $\mathbb{R}^{n+1}$  with  $\mathbb{R}_+^n$  and  $\mathbb{R}_+^{n+1}$ , respectively.
- p. 175, the last sentence in Remark 22.10(ii): Replace  $n > 3$  with  $n > 4$ . (See Conjecture 1.1 in [M. Fila, J. King, *Grow up and slow decay in the critical Sobolev case*, Networks and Heterogeneous Media **7** (2012), 661-671].)
- p. 190, line 6: Add “ $x_k \rightarrow x$ ” in the definition of  $B(u_0)$ .
- pp. 196–197: The proof of Theorem 25.3 should be modified as follows:  
 From l. 1 after (25.6) until the end of the proof, replace  $T$  with 1.  
 At l. 1 after (25.8), replace the definition of  $\bar{v}$  with  $\bar{v} = K(1-t)^{-2C\varepsilon^{2\alpha}}$ .  
 Replace l. 2 after (25.8) with

$$\bar{v}_t = C\varepsilon^{2\alpha}(1-t)^{-1}\bar{v} + KC\varepsilon^{2\alpha}(1-t)^{-1-2C\varepsilon^{2\alpha}}.$$

In (25.9), replace  $C$  with  $2C$ .

- p. 197, line -2: Replace “ $w(\sqrt{2}x)$ ” with “ $\nabla w(\sqrt{2}x)$ ”.
- p. 291, l. -3: Replace  $dx$  with  $dx dt$ .
- p. 313, l. 11: Replace “Sections 35–39” with “Sections 36–39”.
- pp. 345–346: The proof of Lemma 38.7 should be modified as follows:  
 p. 345, l. -3: Replace “Since  $V > 0$  for  $y > 0$ ,  $W$  is smooth there. The equation for  $W$  is:” with  
 “At any point  $y \in \mathbb{R}$  such that  $W(y) > 0$ , the equation for  $W$  is:”.
- p. 346, l. 3: Replace “ $D = \{y > 0 : H(y) \neq 0\}$ ” with “ $D := \{y \in \mathbb{R} : W(y) > 0 \text{ and } H(y) \neq 0\}$ ”.
- p. 346, l. -2: Replace “and that  $Z(y_1) > 0$  (hence  $y_1 \in D$ ).” with “. Moreover  $Z(y_1) > Z(R) \geq 0$  (due to  $f(y_1) > f(R)$ ) and  $W(y_1) \geq W(0) = Z^{1-r}(0) > 0$ , hence  $y_1 \in D$ .”.
- p. 441: After Proposition 48.4(e), add:  
 “(f) For any smoothly bounded domain  $\Omega$  of  $\mathbb{R}^n$ , assertion (d) remains valid if  $e^{-tA}$  is replaced with the Neumann heat semigroup in  $\Omega$  and  $4\pi t$  is replaced with  $C(\Omega) \min(t, 1)$ .”  
 At the end of proof of Proposition 48.4(e), add:  
 “Assertion (f) follows from [154, Theorem 3.2.9].”
- p. 492, line -2: Replace “ $|\nabla v(t)g^{1/2}$ ” with “ $|\nabla v(t)|g^{1/2}$ ”.
- p. 509, formula (52.5): Replace “,  $x \in Q_T$ ” with “in  $Q_T$ ”.
- p. 509: The second sentence in the proof of Proposition 52.4 should read: “Also, we may obviously assume that  $w \in C^{2,1}(\Omega \times (0, t])$ ,  $b, c$  are defined in  $\Omega \times (0, T]$  and (52.3) is true in  $\Omega \times (0, T]$ .”
- p. 534, l. 14: Remove “in italic”.
- p. 553, reference [175]: Replace “J. Funct. Anal. **10**” with “J. Funct. Anal. **100**”.
- p. 569, reference [419]: Replace “Soviet Math. Dokl. **5**” with “Soviet Math. Dokl. **6**”.