Errata and Comments to
“Asymptotic Differential Algebra and
Model Theory of Transseries”

August 23, 2017

The changes below apply to the edition published by Princeton University Press, and are already reflected in the versions posted on the arxiv and on our personal web pages. Our thanks go to Allen Gehret for pointing out several of these items.

Acknowledgments:
The date of September 2015 on p. xiv indicates when the manuscript was submitted to Princeton University Press. The published version incorporates some changes and additions made since then.

Dramatis Personae:
In the item for “ω-free” under the heading “Asymptotic Fields”, $f - \omega(g^{\dagger}) \succcurlyeq g^{\dagger}$ should be $f - \omega(g^{\dagger}) \succcurlyeq (g^{\dagger})^2$.

Chapter 4:
(1) In the first sentence of the proof of 4.1.10, omit $be$.
(2) The last three sentences of the proof of 4.6.12 can be shortened to: Then by Lemma 1.3.10, $a$ is algebraic over $K$, so $a$ is algebraic over $C$ by Lemma 4.1.2.

Chapter 9:
(1) Verifying (AC3) in proof of Lemma 9.8.2 can be shortened using
\[ \max \{ \psi^\alpha (\gamma + k\alpha) : \gamma \in \Gamma, k \in \mathbb{Z}, \gamma + k\alpha \neq 0 \} = \beta - \alpha. \]
(2) In proof of Lemma 9.9.3, insert “, where $v$ is the standard valuation of $\Gamma$” right after “$v$-slow on the right”.

Chapter 10:
(1) In the last sentence of the third paragraph in the “Notes and Comments” to Section 10.6, “not not” should be “not”.

Chapter 11:
(1) In the last display before Lemma 11.1.4, the expression $\{ \gamma : \gamma < (\Gamma^>)^\prime \}$ should be replaced by $\{ \gamma \in \Gamma : \gamma < (\Gamma^>)^\prime \}$.
(2) In proof of Lemma 11.6.3, replace $v(s-a^\dagger) \in (\Gamma^\omega)^\prime$ by $v(s-a^\dagger) \in (\Gamma^\omega)^\prime \cup \{\infty\}$.
(3) In last sentence of proof of Lemma 11.6.14, replace $\sim sf$ by $\sim -sf$.
(4) In proof of Proposition 11.6.17, end of the fourth paragraph, replace $\lambda$ by $\lambda$.
(5) In second part of Lemma 11.8.5, omit the assumption that $K$ has asymptotic integration and replace $=$ at end of proof by $\subseteq$. 
(6) Omit the proof of Corollary 11.8.13; it has an erroneous forward reference.

**Chapter 14:**

(1) After Corollary 14.5.11, it should read: *In Section 16.2 below we show that $E$ has up to isomorphism over $E$ a unique Newton-Liouville closure.* (Instead of *In Section 16.1 . . .*)