

# Publishing Agreement



Series Title:  
**Lecture Notes in Energy**

---

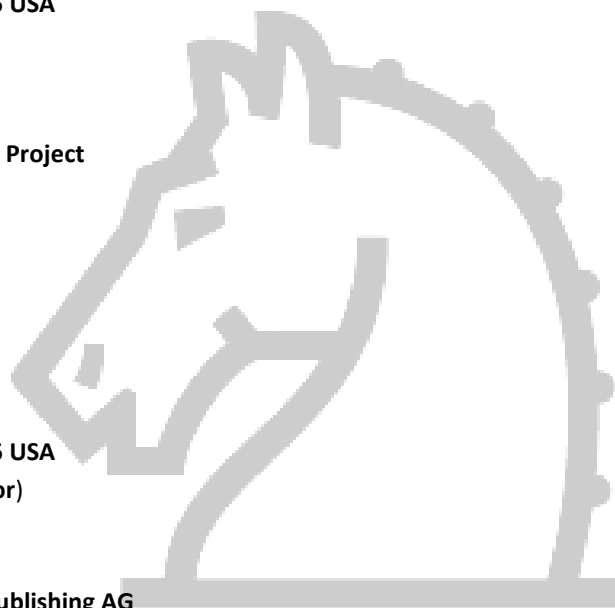
The following agreement has been approved by and entered into between

**Matthew Kuperus Heun**  
**Engineering Department**  
**Calvin College**  
**3201 Burton St. SE**  
**Grand Rapids, MI, 49546 USA**

**Michael Dale**  
**Stanford University**  
**Global Climate & Energy Project**  
**Y2E2 Building**  
**Stanford, CA 94305 USA**

**Becky Roselius Haney**  
**Economics Department**  
**Calvin College**  
**3201 Burton St. SE**  
**Grand Rapids, MI, 49546 USA**  
(hereinafter called **Author**)  
on the one part and

**Springer International Publishing AG**  
Gewerbstrasse 11  
6330 Cham, Switzerland  
(hereinafter called **Springer**)  
on the other part.



When Author is more than one person the expression "Author" as used in this agreement will apply collectively unless otherwise indicated.

## § 1 Rights Granted

1.1 Author undertakes to prepare for publication by Springer a work provisionally entitled:

### **The Metabolic Economy: A Model for Material and Energy Flows**

(hereinafter called **Work**)

comprising approximately 190 pages, including approximately 40 illustrations. The Work may contain or link to media, social or functional enhancements. If such enhancements are included in or linked to the

Work it will be specified in clause 9. To the extent Clause 9 specifies that enhancements are included in the Work, they are an integral part of the Work and, unless otherwise explicitly set forth in Clause 9, all rights, licenses and obligations agreed to hereunder shall apply to such enhancements.

- 1.2 Author hereby grants and assigns to Springer the exclusive, sole, permanent, world-wide, transferable, sub-licensable and unlimited right to reproduce, publish, distribute, transmit, make available or otherwise communicate to the public, translate, publicly perform, archive, store, lease or lend and sell the Work or parts thereof individually or together with other works in any language, in all revisions and versions (including soft cover, book club and collected editions, anthologies, advance printing, reprints or print to order, microfilm editions, audiograms and videograms), in all forms and media of expression including in electronic form (including offline and online use, push or pull technologies, use in databases and networks for display, print and storing on any and all stationary or portable end-user devices, e.g. text readers, audio, video or interactive devices, and for use in multimedia or interactive versions as well as for the display or transmission of the works or parts thereof in data networks or search engines), in whole, in part or in abridged form, in each case as now known or developed in the future, including the right to grant further time-limited or permanent rights. Springer especially has the right to permit others to use individual illustrations, tables or text quotations and may use the Work for advertising purposes. For the purposes of use in electronic forms, Springer may adjust the Work to the respective form of use and include links (e.g. frames or inline-links) or otherwise combine it with other works and/or remove links or combinations with other works provided in the Work. For the avoidance of doubt, all provisions of this contract apply regardless of whether the Work itself constitutes a database under applicable copyright laws or not.
- 1.3 Springer may take, either in its own name or in that of copyright holder, any necessary steps to protect these rights against infringement by third parties. It will have a copyright notice inserted into all editions of the Work according to the provisions of the Universal Copyright Convention (UCC) and dutifully take care of all formalities in this connection in the name of the copyright holder. The parties acknowledge that there may be no basis for claim of copyright in the United States to a Work prepared by an officer or employee of the United States government as part of that person's official duties. If the Work was performed under a United States government contract, but Author is not a United States government employee, Springer grants the United States government royalty-free permission to reproduce all or part of the Work and to authorize others to do so for United States government purposes. If the Work was prepared or published by or under the direction or control of Her Majesty (i.e., the constitutional monarch of the Commonwealth realm) or any Crown government department, the copyright in the work shall, subject to any agreement with Author, belong to Her Majesty. If Author is an officer or employee of the United States government or of the Crown, reference will be made to this status on the signature page.

## § 2 Delivery and Acceptance of the Work

- 2.1 Author agrees to deliver a manuscript of the Work to Springer not later than **30 April 2014**. The manuscript meets the terms of this agreement only if it satisfies the agreed stipulations as to form, content and size according to guidelines provided by Springer upon signature. Springer reserves the right to provide reasonable updates thereof. Author is responsible for correctness of the manuscript, including content, language, formal presentation, and completeness.
- 2.2 Springer is entitled to carry out editorial changes on the manuscript within the usual limits. This is intended especially to enhance the uniform overall organization and form of the Work. Any significant changes in content require the approval of Author. Springer is entitled to prepare and use summaries within the intended use of the Work and for the purposes of sales, distribution and advertising. In the case of special

copyediting which is necessary above and beyond that for normal manuscript preparation for typesetting, the costs will be borne by Author.

- 2.3 Author warrants that the Work is original except for such excerpts from copyrighted works (including illustrations, tables, animations and text quotations) as may be included with the permission of the copyright holder thereof, in which case(s) Author is required to obtain written permission to the extent necessary and to indicate the precise sources of the excerpts in the manuscript. Author is also requested to store the signed permission forms and to make them available to Springer if required.

Author warrants that Author is entitled to grant the rights in accordance with Clause 1 "Rights Granted", that Author has not assigned such rights to third parties, that the Work has not heretofore been published in whole or in part, that the Work contains no libelous statements and does not infringe on any copyright, trademark, patent, statutory right or proprietary right of others, including rights obtained through licenses; and that Author will indemnify Springer against any costs, expenses or damages for which Springer may become liable as a result of any breach of this warranty.

### **§ 3 Publication of the Work**

- 3.1 Springer will undertake the publication and distribution of the Work in print and electronic form at its own expense and risk. The final determination of the electronic formats and the number of copies produced is at the discretion of Springer. Springer will, at its sole discretion, set or alter the list-price, allow for deviations from the list-price (if permitted under applicable jurisdiction) and promote the Work as it considers most appropriate to optimize sales, including a good and suitable presentation for all distribution channels. Illustrations and any other material or immaterial property prepared at the expense of Springer (including, if applicable, printing plates or films) remain, as between the parties, the exclusive property of Springer.
- 3.2 Springer is entitled, depending on the market and the demand, to publish and distribute the Work in installments (including but not limited to individual chapters) or to order. In case the Work is stored in physical stock Springer is also entitled to pulp the print run or any portion thereof without previously notifying Author. Springer is required to continue promoting the Work and to retain a sufficient number of copies unless the Work is available in electronic form or on the basis of a print-to-order offer.

### **§ 4 Approval for Publishing**

Author shall proofread the page proofs, check the illustrations as well as any media, social or functional enhancements, if any, and give approval for publishing. Author's approval for publishing is deemed to have been given if Author does not respond within a suitable period of time after receiving the proofs.

Proofs are sent to enable Author to check that the manuscript has been properly set in type and to allow Author to correct any typesetter's or illustrator's errors. In case Author makes additional changes that lead to additional costs for Springer, and if such costs exceed 10% of the total cost of typesetting (or reproduction in the case of illustrations) they will be borne by Author.

### **§ 5 Complimentary Copies, Author's Discount for Books and Electronic Access**

- 5.1 Author or, if "Author" comprises several individual authors, each of the co-authors who is party to this agreement, is entitled to receive 4 (four) printed copies free of charge and may obtain additional copies for personal use at a discount of 33 1/3% off the list-price if ordered directly from Springer.
- 5.2 Furthermore, Author is entitled to purchase for his/her personal use (directly from Springer) other books published by Springer at a discount of 33 1/3% off the list price for as long as there is a contractual

arrangement between Author and Springer and subject to applicable book price regulation.  
Resale of such copies or of free copies is not permitted.

- 5.3 Springer shall provide electronic access to the electronic version of the Work on Springer's Internet portal, currently known as SpringerLink, to Author. Furthermore, Author has the right to download and disseminate single chapters from his/her Work created and provided by Springer for his/her private and professional non-commercial research and classroom use (e.g. sharing the chapter by mail or in hard copy form with research colleagues for their professional non-commercial research and classroom use, or to use it for presentations or handouts for students). Author is also entitled to use single chapters for the further development of his/her scientific career (e.g. by copying and attaching chapters to an electronic or hard copy job or grant application).

When Author is more than one person each of the co-authors may share single chapters of the Work with other scientists as described above. In each case, Springer grants the rights to Author under this clause provided that Author has obtained the prior consent of any co-author of the respective chapter.

## **§ 6 Royalty**

- 6.1 For each sold and paid copy of the Work or part thereof, print or electronic, sold as an individual book or individual part thereof, Springer shall pay to Author a royalty of 10% based on the net income received by Springer (list-price minus discount and VAT, withholding tax and any other applicable taxes). For the avoidance of doubt, this includes (but is not limited to) such individual sales to digital and non-digital libraries.

If there is a legal requirement for Springer to withhold any taxes on a royalty payment, the taxes will be deducted from the royalty payment to Author.

- 6.2 If the Work is sold electronically as part of a Springer e-book package, Author will receive an equitable share of royalties from the income generated by Springer from the e-book package. The share formula for each individual title within the e-book package will be determined by Springer no later than April for the preceding calendar year. This amount will be paid in addition to the royalty described above and shown separately on the annual royalty statement.

- 6.3 In the case of Bulk Sales, Author's exclusive royalty for the respective Bulk Sale will be 10% of the related Net Proceeds, with "Bulk Sale" being defined as the production and/or distribution of a special number of copies of the Work or parts thereof at a special price regardless of whether it be performed by Springer or by third parties, regardless of whether in print or electronic format and further regardless of whether in a layout identical to the normal edition or not. For the purpose of this Clause 6 Royalty, the term "Net Proceeds" shall be defined as the net amount Springer actually receives after deduction of all discounts, minus production costs incurred by Springer or any Springer Group Company and minus VAT, withholding tax and any other applicable taxes.

- 6.4 If Springer grants licenses to use the Work or derivative works thereof or parts of either in non-Springer products and the related use is not covered by subsections 6.2 to 6.3 above (e.g., a license to translate the work and to distribute the translation, or a license to distribute parts of the Work in a third party book), Author's exclusive royalty for the respective license and any related use will be a share of the Springer's Net Proceeds according to industry standards (currently 50%).

- 6.5 The aforesaid royalties shall be the sole compensation to be paid to Author with respect to the Work and the rights granted. In case the Work contains or links (e.g. through frames or in-line links) to media, social or functional enhancements, the royalties, complimentary copies and/or access rights granted under this contract, are deemed to be adequate consideration. For the avoidance of doubt, the aforesaid royalties

will be paid as a total to the joint group of authors if "Author" comprises several individual authors. Each co-author will receive an equal share of any payment.

- 6.6 Accounts will be settled annually in April for the preceding calendar year, with payment to follow soon thereafter.
- 6.7 Authors are responsible for the taxation of their royalties. Springer is entitled to report related information (including personal and financial data) to the respective authorities.
- 6.8 Free copies which are provided by Springer for the purposes of review, promotion, sample or otherwise free of charge are not subject to royalty payments. Likewise, copies that are damaged and cannot be sold are not subject to royalty payments.
- 6.9 Any publisher's proceeds from rights managed by national copyright organizations (collecting societies including but not limited to societies such as Copyright Clearance Center) are the sole property of Springer. Any such author's proceeds are the sole property of Author, and if applicable, registration and taxation of such proceeds is Author's sole responsibility. This subsection 6.9 shall have precedence over any other subsection of this Clause 6 Royalty.

## **§ 7 Competing Works**

Author agrees not to contribute or to release to another publisher any publication that contains expression or subject matter substantially similar to the Work and which may compete with the Work. Any publication of substantial parts of the Work requires the prior written consent of Springer, such consent not to be unreasonably withheld. Author retains, in addition to uses permitted by law, the right to communicate the content of the Work to other scientists, to share the Work with them in manuscript form, to perform or present the Work or to use the content for non-commercial internal and educational purposes provided the Springer publication is mentioned as the original source of publication in any printed or electronic materials.

## **§ 8 New Editions**

- 8.1 Springer has the sole right to determine the publication of any subsequent edition, such determination to be made only after consultation with Author. In the event of subsequent editions, they shall be published by Springer. Once notified by Springer that a new edition is deemed necessary, Author agrees to deliver an updated manuscript according to the terms of Clause 2 "Delivery and Acceptance of the Work", together with the material for any new illustrations, within 18 months of such notification. Substantial changes in the nature or size of the Work require the approval of Springer. Upon publication of such new edition, Author shall receive a consideration equivalent to Clause 6 "Royalty".
- 8.2 If Author, for whatever reason, is unwilling, unable or fails to submit an updated manuscript that meets the terms of this agreement within the above stated period, then Springer is entitled to revise, update and publish the content of the original edition or to designate one or more individuals to prepare this and all future editions. In this case, Author does not participate in preparing future editions. Furthermore, Author or Author's beneficiaries shall, with respect to this second edition, receive 50% of the financial consideration stipulated in Clause 6 "Royalty" (if any) but shall have no right or claim from any further versions or editions of the Work.

## **§ 9 Miscellaneous**

This Agreement supersedes the previous agreement dated 31 October 2013 between Matthew Kuperus Heun and Springer for a work entitled The Metabolic Economy: A Model for Material and Energy Flows and all amendments thereof.

## § 10 General Provisions

10.1 This agreement shall be governed by, and shall be construed in accordance with, the laws of Switzerland. The courts of Zug, Switzerland shall have the exclusive jurisdiction.

10.2 This agreement, and the documents referred to within, constitute the entire agreement between the parties with respect to the subject matter hereof and supersede any previous agreements, warranties, representations, undertakings or understandings. It may be modified or amended only in writing. For purposes of this agreement, "in writing" requires either a written and signed document or an electronic confirmation with DocuSign or similar e-commerce solution.

10.3 Nothing contained in this Agreement shall constitute or shall be construed as constituting a partnership, joint venture, or contract of employment between Springer and Author. Each author is jointly and severally liable for Author's obligations. Neither party may assign this agreement to third parties but Springer may assign this agreement or the rights received hereunder to its affiliated companies.

To signify their agreement to the terms outlined herein, all parties have signed and exchanged this contract.

### Author(s)

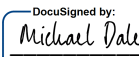
### Springer International Publishing AG, Cham

DocuSigned by:  
  
2DA2B45DDF6645B...  
Matthew Kuperus Heun

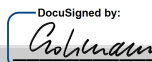
Mar-19-2014

DocuSigned by:  
  
92CC99D3B0C14ED...  
Guido Zosimo-Landolfo  
Editorial Director/Asset Management

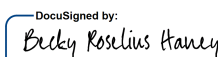
Mar-24-2014

DocuSigned by:  
  
5D04284033AF4D0...  
Michael Dale

Mar-19-2014

DocuSigned by:  
  
4823B173FD974CA...  
Alexander Grossmann  
Managing Director

Mar-25-2014

DocuSigned by:  
  
B412AFA384894D4...  
Becky Roselius Haney

Mar-19-2014

date \_\_\_\_\_

date \_\_\_\_\_

Order Number: 86348930

GPU/PD/PS/RE/DS/Date: 3/31/506/Packer/SKH/16 March 2014

GT-A-Roy -07/2013

## Certificate of Completion


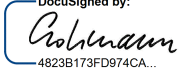
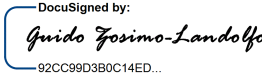
Envelope Number: 53461CD96C7847E48173EBFB3C5DF3F2		Status: Completed
Subject: Please DocuSign this document: 506_Heun_Dale_Haney_86348930_The Metabolic Economy.pdf		
Manuscript Title:		
Source Envelope:		
Document Pages: 6	Signatures: 5	Envelope Originator:
Certificate Pages: 3	Initials: 0	Springer US Contracts Administration
AutoNav: Enabled		233 Spring Street
Envelopeld Stamping: Enabled		New York, NY 10013
		susconadmin@springer.com
		IP Address: 63.116.214.2

## Record Tracking

Status: Original	Holder: Springer US Contracts Administration	Location: DocuSign
3/19/2014 12:59:52 PM ET	susconadmin@springer.com	

## Signer Events

Signature	Timestamp
<p><b>Completed</b></p> <p>Sally Ellyson sally.ellyson@springer.com Springer Science+Business Media LLC Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:</p> <p>Using IP Address: 63.116.214.2</p>	<p>Sent: 3/19/2014 1:02:51 PM ET Viewed: 3/19/2014 1:38:31 PM ET Signed: 3/19/2014 2:45:29 PM ET</p>
<p><b>Completed</b></p> <p>David J. Packer david.packer@springer.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:</p> <p>Using IP Address: 74.89.150.124</p>	<p>Sent: 3/19/2014 2:45:31 PM ET Viewed: 3/19/2014 2:46:28 PM ET Signed: 3/19/2014 2:49:03 PM ET</p>
<p><b>Completed</b></p> <p>Liesbeth Mol Liesbeth.Mol@springer.com Dr Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:</p> <p>Using IP Address: 83.163.13.199 Signed using mobile</p>	<p>Sent: 3/19/2014 2:49:04 PM ET Viewed: 3/19/2014 2:51:32 PM ET Signed: 3/19/2014 2:51:56 PM ET</p>
<p><b>DocuSigned by:</b>  B412AFA384894D4...</p> <p>Using IP Address: 153.106.50.27</p>	<p>Sent: 3/19/2014 2:51:58 PM ET Viewed: 3/19/2014 2:55:47 PM ET Signed: 3/19/2014 3:05:35 PM ET</p>
<p><b>DocuSigned by:</b>  2DA2B45DDF6845B...</p> <p>Using IP Address: 99.56.214.109</p>	<p>Sent: 3/19/2014 2:51:58 PM ET Viewed: 3/19/2014 3:17:40 PM ET Signed: 3/19/2014 8:06:25 PM ET</p>

Signer Events	Signature	Timestamp
Michael Dale mikdale@stanford.edu Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	DocuSigned by:  5D04284033AF4D0... Using IP Address: 86.26.207.136	Sent: 3/19/2014 2:51:59 PM ET Viewed: 3/19/2014 5:12:42 PM ET Signed: 3/19/2014 5:13:29 PM ET
Alexander Großmann alexander.grossmann@springer.com EVP HR Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	DocuSigned by:  4823B173FD974CA... Using IP Address: 213.71.6.130	Sent: 3/19/2014 8:06:26 PM ET Viewed: 3/25/2014 9:06:47 AM ET Signed: 3/25/2014 9:06:55 AM ET
Guido Zosimo-Landolfo guido.zosimo-landolfo@springer.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	DocuSigned by:  92CC99D3B0C14ED... Using IP Address: 213.71.6.130	Sent: 3/19/2014 8:06:27 PM ET Viewed: 3/24/2014 7:27:24 AM ET Signed: 3/24/2014 7:27:38 AM ET

In Person Signer Events	Signature	Timestamp
-------------------------	-----------	-----------

Editor Delivery Events	Status	Timestamp
------------------------	--------	-----------

Agent Delivery Events	Status	Timestamp
-----------------------	--------	-----------

Intermediary Delivery Events	Status	Timestamp
------------------------------	--------	-----------

Certified Delivery Events	Status	Timestamp
---------------------------	--------	-----------

Carbon Copy Events	Status	Timestamp
--------------------	--------	-----------

Sara Kate Heukerott sarakate.heukerott@springer.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	<div>COPIED</div>	Sent: 3/19/2014 1:02:51 PM ET Viewed: 3/20/2014 3:18:00 PM ET
Contracts Physics contracts.physics@springer.com Springer Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	<div>COPIED</div>	Sent: 3/25/2014 9:06:56 AM ET
Daniel Melo SIP Globalroyaltycontract@springer.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	<div>COPIED</div>	Sent: 3/25/2014 9:06:56 AM ET



Carbon Copy Events	Status	Timestamp
Emina Sinani (Book Contracts) contracts.administration@springer.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered ID:	<div>COPIED</div>	Sent: 3/25/2014 9:06:56 AM ET

Notary Events	Timestamp
---------------	-----------

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	3/25/2014 9:06:57 AM ET
Certified Delivered	Security Checked	3/25/2014 9:06:57 AM ET
Signing Complete	Security Checked	3/25/2014 9:06:57 AM ET
Completed	Security Checked	3/25/2014 9:06:57 AM ET