

Curriculum Vitae

Personal information

Geert Verbeke

Work experience

1. Employer: KULeuven
 - Start date: 10, 1997
 - End date:
 - Position: Professor in Biostatistics
 - Activities: Teaching, Research, Consulting
 - Country: Belgium

Education and training

1. Subject: KU Leuven
 - Start date: 10, 1989
 - End date: 09, 1995
 - Qualification: PhD in Biostatistics
 - Organisation: KU Leuven
 - Country: Belgium

Additional information

Publications

Books as author:

1. Verbeke G. and Molenberghs G. (2000) `Linear mixed models for longitudinal data,' Springer Series in Statistics, Springer-Verlag, New-York, 568 pages. ISBN 0-387-95027-3 (hard cover), first printing in 2000, second printing in 2001. ISBN 978-1-4419-0299-3 (paper back), third printing in 2009.
2. Molenberghs G. and Verbeke G. (2005) `Models for discrete longitudinal data,' Springer Series in Statistics, Springer-Verlag, New-York, 683 pages. ISBN 0-387-25144-8.

Books as editor:

1. Verbeke G. and Molenberghs G. (1997) `Linear mixed models in practice: A SAS-oriented approach,' Lecture Notes in Statistics 126, Springer-Verlag, New-York, 306 pages. ISBN 0-387-98222-1.
2. Verbeke G. and Molenberghs G. (2001) `Linear mixed models in practice: A SAS-oriented approach,' Japanese translation by Matsyama Y., and Yamaguchi, T., Springer-Verlag GmbH and Co. KG through Japan UNI Agency, Inc. Tokyo, 320 pages.

ISBN 4-914903-75-X.

3. Verbeke G., Molenberghs G., Aerts M., and Fieuws S. (2003) `Proceedings of the 18th International Workshop on Statistical Modelling, July 7-11, 2003, Leuven, Belgium,' 489 pages.
ISBN 90-807934-1-8.
4. Fitzmaurice G., Davidian M., Verbeke G., and Molenberghs G. (2009) `Longitudinal data analysis,' Chapman and Hall/CRC, 618 pages.
ISBN 978-1-58488-658-7.
5. Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (2015) `Handbook of missing data methodology,' New-York: Chapman and Hall/CRC, 574 pages.
ISBN 978-1-4398-5461-7.

Book chapters:

1. Molenberghs G. and Verbeke G. (1997) `Linear mixed models in practice. Introduction,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Lecture Notes in Statistics 126, Springer-Verlag, New-York, ISBN 0-387-98222-1, 1-9 (Chapter 1).
2. Verbeke G. (1997) `Linear mixed models for longitudinal data,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Lecture Notes in Statistics 126, Springer-Verlag, New-York, ISBN 0-387-98222-1, 63-153 (Chapter 3).
3. Verbeke G. and Molenberghs G. (1997) `Linear mixed models in practice. Case studies,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Lecture Notes in Statistics 126, Springer-Verlag, New-York, ISBN 0-387-98222-1, 155-189 (Chapter 4).
4. Molenberghs G. and Verbeke G. (2001) `Linear mixed models in practice. Introduction,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Japanese translation by Y. Matsuyama and T. Yamaguchi, Springer-Verlag GmbH and Co.KG through Japan UNI Agency, Inc. Tokyo, ISBN 4-914903-75-X, 1-8 (Chapter 1).
5. Verbeke G. (2001) `Linear mixed models for longitudinal data,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Japanese translation by Y. Matsuyama and T. Yamaguchi, Springer-Verlag GmbH and Co.KG through Japan UNI Agency, Inc. Tokyo, ISBN 4-914903-75-X, 53-129 (Chapter 3).
6. Verbeke G. and Molenberghs, G. (2001) `Linear mixed models in practice. Case studies,' In: Linear mixed models in practice: A SAS-oriented approach, Verbeke G. and Molenberghs G. (Eds.), Japanese translation by Y. Matsuyama and T. Yamaguchi, Springer-Verlag GmbH and Co.KG through Japan UNI Agency, Inc. Tokyo, ISBN 4-914903-75-X, 130-162 (Chapter 4).
7. Molenberghs G., Thijs H., Verbeke G., Michiels B. and Kenward M.G. (2002)

- `Strategies to fit pattern-mixture models,' In: Statistical methods for quality of life studies: Design, measurements, and analysis, M. Mesbah, B.F. Cole and M.-L. Ting Lee (Eds.), Kluwer Academic Publisher, ISBN 1-4020-0142-8.
8. Molenberghs G., and Verbeke G. (2004), `An Introduction to (Generalized) (Non-)Linear Mixed Models,' In: Explanatory item response models: A generalized linear and nonlinear approach, P. De Boeck and M. Wilson (Eds.), Springer-Verlag, New-York, ISBN 0-387-40275-6, 111-153 (Chapter 4).
 9. Tuerlinckx F., Rijmen F., Molenberghs G., Verbeke G., Briggs D., Van den Noortgate W., Meulders M., and De Boeck P. (2004), `Estimation and software,' In: Explanatory item response models: A generalized linear and nonlinear approach, P. De Boeck and M. Wilson (Eds.), Springer-Verlag, New-York, ISBN 0-387-40275-6, 343-373 (Chapter 12).
 10. Molenberghs G., Beunckens C., Jansen I., Thijs H., Verbeke G., Kenward M.G., (2004), `Missing data,' In: Handbook of Epidemiology, I. Pigeot and W. Ahrends (Eds.), Springer-Verlag, Heidelberg, ISBN 3-540-00566-8, 767-827.
 11. Lesaffre E., and Verbeke G. (2005), `Clinical trials and intervention studies,' In: Encyclopedia of Statistics in Behavioral Statistics, B.S. Everitt and D.C. Howell (Eds.), New-York: John Wiley and Sons, Inc., ISBN 0-470-86080-4, 301-305.
 12. Verbeke G., and Lesaffre E. (2005), `Repeated Measurements,' In: Encyclopedia of Statistical Sciences, S. Kotz, N.L. Johnson, N. Balakrishnan, C.B. Read, and B. Vidakovic (Eds.), 2nd ed., New-York: John Wiley and Sons, Inc., ISBN 0-471-74384-4, 7162-7172.
 13. Molenberghs, G., Beunckens, C., Jansen, I., Thijs. H., Van Steen, K., Verbeke G., and Kenward, M.G. (2005), `The Analysis of Incomplete Data,' In: Analysis of Clinical Trials using SAS: A Practical Guide,' Dmitrienko A., Molenberghs G., Chuang-Stein, C. and Offen, W. (Eds). Cary, NC: SAS Publishing, ISBN 1-59047-504-6, 269-354 (Chapter 5).
 14. Verbeke G. and Molenberghs G. (2006), `Diggle-Kenward model for dropouts,' In: Encyclopedia of Measurements and Statistics, N.J. Salkind (Ed.), Sage Publications Inc., ISBN 1-412-91611-9, 261-264.
 15. Verbeke G., and Lesaffre E. (2006), `Repeated Measurements,' In: Encyclopedia of Clinical Trials, D'Agostino, Sullivan, and Massaro (Eds.), New-York: John Wiley and Sons, Inc. (online).
 16. Molenberghs, G., Beunckens, C., Thijs, H., Jansen, I., Verbeke G., Kenward, M.G., and Van Steen, K. (2007) Analysis of Incomplete Data. In: SAS System for Clinical Trials II, Dmitrienko, A., Chuang-Stein, C., and D'Agostino, R. (Eds.) Cary: SAS Press, ISBN 978-1-59047-886-8, 313-360 (Chapter 10).
 17. Verbeke G. and Molenberghs, G. (2007), `Repeated measures and multilevel modelling,' In: Biometrics, Wilson, S. (ed.), In: Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford ,UK, [<http://www.eolss.net>], ISBN 978-1-905839-36-0, 237-255.

18. Verbeke G. (2008) 'Kun je met statistiek werkelijk alles bewijzen?' In: Denken en weten over de wereld. Lessen voor de eenentwintigste eeuw, Raymaekers B. (Ed.), Universitaire Pers Leuven, ISBN 978-90-5867-647-4, 215-230.
19. Fitzmaurice G. and Verbeke G. (2009), 'Parametric modeling of longitudinal data: Introduction and overview,' In: Longitudinal data analysis, Fitzmaurice G., Davidian M., Verbeke G., and Molenberghs G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-58488-658-7, 31-42 (Chapter 2).
20. Verbeke G. and Davidian M. (2009), 'Joint models for longitudinal data: Introduction and overview,' In: Longitudinal data analysis, Fitzmaurice G., Davidian M., Verbeke G., and Molenberghs G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-58488-658-7, 319-326 (Chapter 13).
21. Fieuws S. and Verbeke G. (2009), 'Joint models for high-dimensional longitudinal data,' In: Longitudinal data analysis, Fitzmaurice G., Davidian M., Verbeke G., and Molenberghs G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-58488-658-7, 367-394 (Chapter 16).
22. Molenberghs G., Verbeke G., and Kenward M.G. (2009), 'Sensitivity analysis for incomplete data,' In: Longitudinal data analysis, Fitzmaurice G., Davidian M., Verbeke G., and Molenberghs G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-58488-658-7, 501-552 (Chapter 22).
23. Verbeke G. and Molenberghs G. (2009), 'Formal and Informal Model Selection with Incomplete Data,' In: Encyclopedia of Biopharmaceutical Statistics,' in press.
24. Verbeke G. and Lesaffre E. (2009), 'Repeated Measurements,' In: Methods and Applications of Statistics in the Life and Health Sciences, Balakrishnan N. (Ed.), Wiley & Sons, New-York, 695-708.
25. Verbeke G., Molenberghs G., & Rizopoulos D. (2010), 'Random effects models for longitudinal data,' In: Longitudinal research with latent variables, van Montfort K., Oud H., & Satorra A. (Eds.), Springer-Verlag, New-York, , 37-96 (Chapter 2).
26. Verbeke G. and Lesaffre E. (2010), 'Repeated Measurements,' In: Encyclopedia of Statistical Sciences (online), Wiley & Sons, New-york, DOI: 10.1002/0471667196.ess7001.pub2.
27. Verbeke G. and Molenberghs G. (2010), Modèles marginaux et modèles mixtes. In: Analyse statistique des données longitudinales, J.J. Dreesbeke and G. Saporta (Eds.), Paris: Editions Technip, 15-56 (Chapter 2).
28. Molenberghs G., Beunckens C., Jansen I., Thijs H., Verbeke G., Kenward M.G. (2010), Données manquantes. In: Analyse statistique des données longitudinales, J.J. Dreesbeke and G. Saporta (Eds.), Paris: Editions Technip, 57-128 (Chapter 3).
29. Verbeke G. & Molenberghs, G. (2013), 'Generalized linear mixed models—overview,' In: The SAGE handbook of multilevel modeling, M. Scott, J. Simonoff, and B. Marx (Eds.), London: SAGE Publications Ltd., 127-141 (Chapter

- 8), doi: <http://dx.doi.org/10.4135/9781446247600.n8>
30. Molenberghs, G. & Verbeke G. (2013), 'Missing data,' In: The SAGE handbook of multilevel modeling, M. Scott, J. Simonoff, and B. Marx (Eds.), London: SAGE Publications Ltd., 403-425 (Chapter 23), doi:<http://dx.doi.org/10.4135/9781446247600.n23>
 31. Fitzmaurice G.M., Kenward M.G., Molenberghs G., Verbeke G., and Tsiatis A.A. (2015) 'Missing data methodology: Introduction and preliminaries,' In: Handbook of missing data methodology, Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-4398-5461-7, 3-22 (Chapter 1).
 32. Kenward M.G., Molenberghs G., and Verbeke G. (2015) 'Likelihood and Bayesian methods: Introduction and overview,' In: Handbook of missing data methodology, Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-4398-5461-7, 49-52 (Chapter 3).
 33. Molenberghs G., Verbeke G., and Kenward M.G. (2015) 'Sensitivity analysis: Introduction and overview,' In: Handbook of missing data methodology, Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-4398-5461-7, 319-324 (Chapter 15).
 34. Verbeke G., Molenberghs G., and Kenward M.G. (2015) 'Sensitivity analysis: A likelihood-based perspective,' In: Handbook of missing data methodology, Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-4398-5461-7, 325-378 (Chapter 16).
 35. Rizopoulos D., Molenberghs G., and Verbeke G. (2015) 'Model diagnostics,' In: Handbook of missing data methodology, Molenberghs G., Fitzmaurice G., Kenward M.G., Tsiatis A., and Verbeke G. (Eds.), Chapman and Hall/CRC, ISBN 978-1-4398-5461-7, 547-564 (Chapter 24).
 36. Molenberghs G. and Verbeke G. (2017) 'Longitudinal data analysis,' Wiley Statsref: Statistics Reference Online, Wiley & Sons, New-york, ISBN 9781118445112, doi: <http://onlinelibrary.wiley.com/doi/10.1002/9781118445112.stat00291.pub2/full>
 37. Molenberghs G. and Verbeke G. (2017) 'Mixed outcomes,' Wiley Statsref: Statistics Reference Online, Wiley & Sons, New-york, in press
 38. Lovik A., Nassiri V., Verbeke G. and Molenberghs G. (2018) 'Combining factors from different factor analyses based on factor congruence,' In: Quantitative Psychology: The 82nd Annual Meeting of the Psychometric Society, Zurich, Switzerland, 2017, Wiberg M., Culpepper S., Janssen R., Gonzalez J., and Molenaar D. (Eds.), Springer International Publishing AG, Springer Proceedings in Mathematics & Statistics, ISBN 978-3-319-77248-6, 211-219
 39. Verbeke G., Molenberghs G., Fieuws S., and Iddi S. (2018) 'Mixed models with emphasis on large data sets,' In: Mixed-effects regression models in linguistics, Speelman D., Heylen K., and Geeraerts D. (Eds.), Quantitative Methods in the

Humanities and Social Sciences, Springer International Publishing AG, ISBN 978-3-319-69828-1, 11-28 (Chapter 2).

40. Molenberghs G., Neyens T., and Verbeke G. (2021) 'COVID-19: Een epidemiologische en biostatistische kijk op de pandemie' In: Weten wat telt in tijden van crisis. Lessen voor de eenentwintigste eeuw, Pattyn B. and d'Hoine P. (Ed.), Universitaire Pers Leuven, ISBN 978-94-6270-284-4, 39-67.
41. Molenberghs G., Beunckens C., Jansen I., Thijs H., Verbeke G., and Kenward M.G., (2022), 'Missing data,' In: Handbook of Epidemiology, W. Ahrends and I. Pigeot (Eds.), Springer-Verlag, Heidelberg, in press.
42. Molenberghs G., Verbeke G., and Kenward M.G., (2022), 'Generalized estimating equations,' In: Handbook of Epidemiology, W. Ahrends and I. Pigeot (Eds.), Springer-Verlag, Heidelberg, in press.

Papers:

1. Spitz B., Van Bree R., Van Ballaer P., Verbeke G., Hanssens M. and Van Assche F. (1991), 'Differential inhibition of vascular prostacyclin and platelet thromboxane synthesis by different doses aspirin and by the thromboxane inhibition ridogrel (R 68070),' Clinical and Experimental Hypertension in Pregnancy, B10(3), 371-383.
2. Brant L.J., Pearson J.D., Morrell C.H. and Verbeke G. (1992), 'Statistical methods for studying individual change during aging,' Collegium Antropologicum, 16, 2, 359-369.
3. Lesaffre E., Verbeke G. and Molenberghs G. (1994), 'A sensitivity analysis of two multivariate response models,' Computational Statistics and Data Analysis, 17, 363-391.
4. Kesteloot H., Sasaki S., Verbeke G. and Joossens J.V. (1994), 'Cancer mortality and age: relationship with dietary fat,' Nutrition and Cancer, 22, 1, 85-98.
5. Boonen S., Koutri R., Dequeker J., Aerssens J., Lowet G., Nijs J., Verbeke G., Lesaffre E. and Geusens P. (1995), 'Measurement of femoral geometry in type I and type II osteoporosis: Differences in axis length consistent with heterogeneity in the pathogenesis of osteoporotic fractures,' Journal of Bone and Mineral Research, 10, 1908-1912.
6. Verbeke G. and Lesaffre E. (1996), 'A linear mixed effects model with heterogeneity in the random effects population,' Journal of the American Statistical Association, 91, 217-221.
7. Verdonck A., De Ridder L., Carels C., Verbeke G., Bourguignon J.P., Kuhn R. (1996), 'Pharmacological testosterone inhibition effects on skull growth in rats,' Journal of Dental Research, 75, 1895-1895.
8. Macaluso G.M., De Laat A., Pavesi G., and Verbeke G. (1996), 'The asymmetric tonic neck reflex modifies the temporalis H-reflex in man,' Journal of dental research, 75, 1957.
9. Verbeke G. and Lesaffre E. (1997), 'The effect of misspecifying the random effects distribution in linear mixed models for longitudinal data,'

- Computational Statistics and Data Analysis, 23, 541-556.
10. Verbeke G. and Lesaffre E. (1997), 'The linear mixed model. A critical investigation in the context of longitudinal data,' In: Proceedings of the Nantucket conference on Modelling Longitudinal and Spatially Correlated Data: Methods, Applications, and Future Directions, Gregoire, T. (Ed.), Lecture Notes in Statistics 122, Springer-Verlag, New York, 89-99.
 11. Brant L.J. and Verbeke G. (1997), 'Describing the natural heterogeneity of aging using multilevel regression models,' International Journal of Sports Medicine, 18, S225-S231.
 12. Boonen S., Cheng X.G., Nijs J., Verbeke G., Lesaffre E., Aerssens J., and Dequeker J. (1997), 'Factors associated with cortical and trabecular bone loss assessed by peripheral computed tomography (pQCT) at the ultradistal radius in aging women,' Calcified Tissue International, 60, 164-170.
 13. Boonen S., Nicholson P., Lowet G., Cheng X.G., Verbeke G., Lesaffre E., Aerssens J. and Dequeker J. (1997), 'Determinants of age-associated changes in os calcis ultrasonic indices in elderly women,' Age and Ageing, 26, 139-146.
 14. Boonen S., Broos P., Verbeke G., Aerssens J., Van Herck E., Jans I., Dequeker J. and Bouillon R. (1997), 'Calciotropic hormones and markers of bone remodeling in age-related (type II) femoral neck osteoporosis,' Journal of Gerontology: Medical Sciences, 52, 286-293.
 15. Willems G., Carels C. and Verbeke G. (1997), 'In vitro peel/shear bond strength of orthodontic adhesives,' Journal of Dentistry, 25, 263-270.
 16. Willems G., Carels C. and Verbeke G. (1997), 'In vitro peel/shear bond strength evaluation of bracket base design,' Journal of Dentistry, 25, 271-278.
 17. Boonen S., Aerssens J., Dequeker J., Nicholson P., Cheng X.G., Lowet G., Verbeke G. and Bouillon R. (1997), 'Age-associated decline in human femoral neck cortical and trabecular content of insulin-like growth factor-I: Potential implications for age-related (type II) osteoporotic fracture occurrence,' Calcified Tissue International, 61, 173-178.
 18. Van Erum R., Mulier M., Carels C., Verbeke G. and de Zegher F. (1997), 'Craniofacial growth in short children born small for gestational age: Effect of growth hormone treatment,' Journal of Dental Research, 76, 1579-1586.
 19. Peeters M., Geypens B., Claus D., Nevens H., Ghooys Y., Verbeke G., Baert F., Vermeire S., Vlietinck R. and Rutgeerts P. (1997), 'Clustering of increased small intestinal permeability in families with Crohn's disease,' Gastroenterology, 113, 802-807.
 20. Boonen S., Cheng X.G., Nicholson P., Verbeke G., Broos P. and Dequeker J. (1997), 'Accuracy of peripheral skeletal assessment at the radius in estimating femoral bone density as measured by dual-energy X-ray absorptiometry: A comparative study of singly-photon absorptiometry and computed tomography,' Journal of Internal Medicine, 242, 323-328.
 21. Van Erum R., Carels C., Verbeke G. and de Zegher F. (1997), 'Craniofacial

- growth in short children born small for gestational age: Two years follow-up after high-dose growth hormone treatment,' *Journal of Craniofacial Genetics and Development Biology*, 17, 184-189.
22. Boonen S., Vanderschueren D., Cheng X.G., Verbeke G., Geusens P., Broos P. and Bouillon R. (1997), 'Age-related (type II) femoral neck osteoporosis in men: Biochemical evidence for both hypovitaminosis D- and androgen deficiency-induced bone resorption,' *Journal of Bone and Mineral Research*, 12, 2119-2126.
 23. Verbeke K.A., Schiepers C.W., Wynendaele D., Baetens J.A., Drent P., Verbeke G., De Roo M.J. and Verbruggen A.M. (1997), 'Development and evaluation of a kit-formulation and preparation of ^{99m}Tc -DMP-HSA, a new tracer agent for radionuclide ventriculography,' *Nuclear Medicine and Biology*, 24, 571-578.
 24. Verbeke G., Lesaffre E. and Brant L.J. (1998), 'The detection of residual serial correlation in linear mixed models,' *Statistics in Medicine*, 17, 1391-1402.
 25. Lesaffre E. and Verbeke G. (1998), 'Local influence in linear mixed models,' *Biometrics*, 54, 570-582.
 26. Boonen S., Lysens R., Verbeke G., Joosten E., Dejaeger E., Pelemans W., Flamaing J. and Bouillon R. (1998), 'Relationship between age-associated endocrine deficiencies and muscle function in elderly women: A cross-sectional study,' *Age and Ageing*, 27, 449-454.
 27. Nevens F., Abd El Atti E., Bogaerts K., Verbeke G., and Fevery J. (1998), 'The level of variceal pressure is a mayor predictor for variceal hemorrhage both in patients with cirrhosis as in patients with non-cirrhotic portal hypertension,' *Hepatology*, 28, 126.
 28. De Laat A., Meuleman H., Stevens A. and Verbeke G. (1998), 'Correlation between cervical spine and temporomandibular disorders,' *Clinical Oral Investigations*, 4, 54-57.
 29. Verdonck A., De Ridder L., Verbeke G., Bourguignon J.P., Carels C., Kuhn R., Darras V. and de Zegher F. (1998), 'Comparative effects of neonatal and prepubertal castration on craniofacial growth in rats,' *Archives of Oral Biology*, 43, 861-871.
 30. Verbeke G. and Lesaffre E. (1999), 'The impact of dropout on the efficiency of longitudinal experiments,' *Journal of the Royal Statistical Society, Series C: Applied Statistics*, 48, 363-375.
 31. Lesaffre E., Asefa and Verbeke G. (1999), 'Assessing the goodness-of-fit of the Laird and Ware model, an example: The Jimma Infant Survival Differential Longitudinal Study,' *Statistics in Medicine*, 18, 835-854.
 32. El Atti E.A., Nevens F., Bogaerts K., Verbeke G. and Fevery J. (1999), 'Variceal pressure is a strong predictor of variceal haemorrhage in patients with cirrhosis as well as in patients with non-cirrhotic portal hypertension,' *Gut*, 45, 618-621.
 33. Boonen S., Mohan S., Dequeker J., Aerssens J., Vanderschueren D., Verbeke G., Broos P., Bouillon R. and Baylink D.J. (1999), 'Down-regulation of the serum

- stimulatory components of the insulin-like growth factor (IGF) system (IGF-I, IGF-II, IGF binding protein (BP)-3 and IGFBP-5) in age-related (type II) femoral neck osteoporosis.' *Journal of Bone and Mineral Research*, 14, 2150-2158.
34. Spiessens B., Lesaffre E., Verbeke G., Kim K.-M. and DeMets D.L. (2000), 'An overview of group sequential methods in longitudinal clinical trials,' *Statistical Methods in Medical Research*, 9, 497-515.
 35. Lesaffre E., Todem D. and Verbeke G., and M. Kenward (2000), 'Flexible modelling of the covariance matrix in a linear random effects model,' *Biometrical Journal*, 42, 807-822.
 36. Verbeke G., Fieuws S. (2000), 'Letter to the editor,' *Drug Information Journal*, 34, 1373-1375.
 37. Thijs H., Molenberghs G. and Verbeke G. (2000), 'The milk protein trial: Influence analysis of the dropout process,' *Biometrical Journal*, 42, 617-646.
 38. Feys H, De Weerd W, Peeraer L, Verbeke G., Verlinden B, Nieuwboer A, Janssens L. (2000) 'Foot loading and roll-off pattern during walking: A comparison between stroke patients and age- and sex-matched control subjects,' *Physiotherapy*, 86, 37-38.
 39. Verbeke G., Molenberghs G., Thijs H., Lesaffre E. and Kenward M.G. (2001), 'Sensitivity analysis for non-random dropout: A local influence approach,' *Biometrics*, 57, 7-14.
 40. Molenberghs G., Verbeke G., Thijs H., Lesaffre E. and Kenward M.G. (2001), 'Mastitis in dairy cattle: Influence analysis to assess sensitivity of the dropout process,' *Computational Statistics and Data Analysis*, 37, 93-113.
 41. Willems G., Clocheret K., Celis J.P., Verbeke G., Chatzicharalampous E., and Carels C. (2001), 'Frictional behavior of stainless steel bracket-wire combinations subjected to small oscillating displacements,' *American Journal of Orthodontics and Dentofacial Orthopedics*, 120, 371-377.
 42. Verbeke G., Lesaffre E. and Spiessens B. (2001), 'The practical use of different strategies to handle dropout in longitudinal studies,' *Drug Information Journal*, 35, 419-434.
 43. Verbeke G., Spiessens B. and Lesaffre E. (2001), 'Conditional linear mixed models,' *The American Statistician*, 55, 25-34.
 44. Molenberghs G. and Verbeke G. (2001), 'A review on linear mixed models for longitudinal data, possibly subject to dropout,' *Statistical Modelling*, 1, 235-269.
 45. Thijs H., Molenberghs G., Michiels B., Verbeke G. and Curran D. (2002), 'Strategies to fit pattern-mixture models,' *Biostatistics*, 3, 245-265.
 46. Komarek A. and Verbeke G. (2002), 'On a fitting of a linear mixed model with a finite normal mixture as random-effects distribution,' *Robust*, 186-193.
 47. Van Steen K., Molenberghs G., Verbeke G. and Thijs H. (2001), 'A local influence approach to sensitivity analysis of incomplete longitudinal ordinal data,' *Statistical Modelling*, 1, 125-142.

48. Willems, G., Clocheret, K., Celis, J., Verbeke G., Chatzicharalampous, and E., Carels, C. (2001), 'Frictional behavior of stainless steel bracket-wire combinations subjected to small oscillating displacements,' *American journal of orthodontics and dentofacial orthopedics*, 120, 371-377.
49. Molenberghs G., Renard D., and Verbeke G. (2002), 'A review of generalized linear mixed models,' *Journal de la Société Française de Statistiques*, 143, 53-78.
50. Spiessens B., Lesaffre E., Verbeke G., and Kim K.M. (2002) 'Group sequential methods for an ordinal logistic random-effects model under misspecification,' *Biometrics*, 58, 569-575.
51. Donders G., Prenen H., Verbeke G., and Reybrouck R. (2002), 'Impaired tolerance for glucose in women with recurrent vaginal candidiasis,' *American Journal of Obstetrics and Gynecology*, 187, 989-993.
52. Verbeke G. (2002), 'Longitudinale experimenten in de bio-medische wetenschappen,' *Tijdschrift voor Geneeskunde*, 58, 1199-1211.
53. Spiessens B., Lesaffre E. and Verbeke G. (2003), 'A comparison of group sequential methods for binary longitudinal data,' *Statistics in Medicine*, 22, 501-515.
54. Morrell C.H., Brant L.J., Pearson J.D., Verbeke G., and Fleg J.L. (2003), 'Applying linear mixed-effects models to the problem of measurement error in epidemiologic studies,' *Communications in Statistics: Simulation and Computation*, 32, 437-459.
55. Brant L.J., Sheng S.L., Morrell C.H., Verbeke G., Lesaffre E., and Carter H.B. (2003), 'Heterogeneous random-effects models for screening of prostate cancer,' *Journal of the Royal Statistical Society, Series~A: Statistics in Society*, 166, 51-62.
56. Molenberghs G., Thijs H., Kenward M.G., and Verbeke G. (2003), 'Sensitivity analysis for continuous incomplete longitudinal outcomes,' *Statistica Neerlandica*, 57, 112-135.
57. Verbeke G. and Molenberghs G. (2003) , 'The use of score tests for inference on variance components,' *Biometrics*, 59, 254-262.
58. Curran D., Molenberghs G., Thijs H., and Verbeke G. (2004), 'Sensitivity analysis for pattern mixture models,' *Journal of Biopharmaceutical Statistics*, 14, 125-143.
59. Molenberghs G. and Verbeke G. (2004), 'Meaningful statistical model formulations for repeated measures,' *Statistica Sinica*, 14, 989-1019.
60. Fieuws S. and Verbeke G. (2004), 'Joint modelling of multivariate longitudinal profiles: Pitfalls of the random-effects approach,' *Statistics in Medicine*, 23, 3093-3104.
61. Molenberghs G., Thijs H., Michiels B., Verbeke G., and Kenward M.G. (2004), 'Pattern-Mixture Models,' *Journal de la Société Française de Statistiques*, 145, 49-77.

62. Feys H., De Weerd W., Verbeke G., Cox Steck G., Capiou C., Kiekens C., Dejaeger E., Van Hoydonck G., Vermeersch G., and Cras P. (2004), 'Early and repetitive stimulation of the arm can substantially improve the long-term outcome after stroke: A 5-year follow-up study of a randomized trial,' *Stroke*, 35, 924-929.
63. Vlaminc H., Maes B., Evers G., Verbeke G., Lerut E., Van Damme B., and Vanrenterghem Y. (2004), 'Prospective study on late consequences of subclinical non-compliance with immunosuppressive therapy in renal transplant patients,' *American Journal of Transplantation*, 4, 1509-1513.
64. Van Nieuwenhuyse A., Fatkhutdinova L., Verbeke G., Pirenne D., Johannik K., Somville P.R., Mairiaux P., Moens G.F., and Masschelein R. (2004) 'Risk factors for first-ever low back pain among firstly employed workers,' *Occupational Medicine*, 54, 513-519.
65. Hens N., Aerts M., Molenberghs G., Thijs H., and Verbeke G. (2005), 'Kernel weighted influence measures,' *Computational Statistics and Data Analysis*, 48, 467-487.
66. Gelman A., Van Mechelen I., Verbeke G., Heitjan D.F., and Meulders M. (2005), 'Multiple imputation for model checking: Completed data plots with missing and latent data,' *Biometrics*, 61, 74-85.
67. Jansen I., Hens N., Molenberghs G., Aerts M., Verbeke G., and Kenward M. (2006), 'The nature of sensitivity in missing not at random models,' *Computational Statistics and Data Analysis*, 50, 830-858.
68. Verbeke G. and Molenberghs G. (2005) 'Longitudinal and incomplete clinical studies (with discussion),' *Metron: International Journal of Statistics*, 63, 143-176.
69. Kesteloot H. and Verbeke G. (2005), 'On the relationship between all-cause, cardiovascular, cancer and residual mortality rates with age,' *European Journal of Cardiovascular Prevention and Rehabilitation*, 12, 175-181.
70. Verbeke G., Fieuws S., Lesaffre E., Kato B.S., Foreman M.D., Broos P.L.O., and Milisen K. (2006), 'A comparison of procedures to correct for baseline differences in the analysis of continuous longitudinal data: A case study,' *Applied Statistics*, 55, 92-101.
71. Jansen I., Beunckens C., Molenberghs G., Verbeke G., Mallinckrodt C., and Carroll R.J. (2006), 'Analyzing incomplete binary longitudinal clinical trial data,' *Statistical Science*, 21, 52-69.
72. Fieuws S. and Verbeke G. (2006), 'Pairwise fitting of mixed models for the joint modelling of multivariate longitudinal profiles,' *Biometrics*, 62, 424-431.
73. Fieuws S., Verbeke G., Boen F., and Delecluse C. (2006) 'High Dimensional Multivariate Mixed Models for Binary Questionnaire Data,' *Applied Statistics*, 55, 449-460.
74. Tuerlinckx F., Rijmen F., Verbeke G., and De Boeck, P. (2006), 'Statistical inference in generalised linear mixed models: A review,' *British Journal of Mathematical and Statistical Psychology*, 59, 225-255.

75. Van Nieuwenhuysse A., Somville P.R., Crombez G., Burdorf A., Verbeke G., Johannik K., Van den Bergh O., Masschelein R., Mairiaux Ph., Moens G.F., and the BelCoBack Study Group (2006), 'The role of physical workload and pain-related fear in the development of low back pain in young workers. Evidence from the BelCoBack Study: Results after one year of follow-up,' *Occupational and Environmental Medicine*, 63, 45-52.
76. Van Waelvelde H., De Weerdts W., De Cock P., Feys H., Verbeke G., and Smits-Engelsman B. (2006), 'Kinderen met 'Developmental coordination disorder': waarom missen ze de bal?', *Nederlands Tijdschrift voor Fysiotherapie*, 116, 34-39.
77. Smulders D., Verbeke G., Mormède P., and Geers R. (2006), 'Validation of a behavioral observation tool to assess pig welfare,' *Physiology and Behavior*, 89, 438-447.
78. Joosten E., Lemiengre J., Nelis T., Verbeke G. and Milisen K. (2006), 'Is anaemia a risk factor for delirium in an acute geriatric population?' *Gerontology*, 52, 382-385.
79. Tibaldi F., Verbeke G., Molenberghs G., Renard D., Van den Noortgate W., De Boeck P. (2007) 'Conditional Mixed Models with Crossed Random-Effects,' *British Journal of Mathematical and Statistical Psychology*, 60, 351-365.
80. Molenberghs G. and Verbeke G. (2007) 'Likelihood Ratio, Score, and Wald Tests in a Constrained Parameter Space,' *The American Statistician*, 61, 22-27.
81. Verbeke G. and Molenberghs G. (2007) 'What can go wrong with the score test?', *The American Statistician*, 61, 289-290.
82. Fieuws S., Verbeke G., and Molenberghs G. (2007) 'Random-effects models for multivariate repeated measures,' *Statistical Methods in Medical Research*, 16, 387-398.
83. Beunckens C., Molenberghs G., Thijs H., and Verbeke G. (2007) 'Incomplete hierarchical data,' *Statistical Methods in Medical Research*, 16, 457-492.
84. Verbeke G. and Fieuws S. (2007), 'The effect of misspecified baseline characteristics on inference for longitudinal trends in linear mixed models,' *Biostatistics*, 8, 772-783.
85. Beunckens C., Molenberghs G., Verbeke G., and Mallinckrodt C. (2007) 'A latent-class mixture model for incomplete longitudinal Gaussian data,' *Biometrics*, 64, 96-105.
86. Molenberghs G., Verbeke G. and Demétrio C.G.B. (2007) , 'An extended random-effects approach to modeling repeated, overdispersed count data,' *Lifetime Data Analysis*, 13, 513-532.
87. Rizopoulos D., Verbeke G., Lesaffre E., and Vanrenterghem Y. (2007) 'A two-part joint model for the analysis of survival and longitudinal binary data with excess zeros,' *Biometrics*, 64, 611-619.
88. Lemiengre J., Dierckx de Casterlé B., Verbeke G., Guisson C., Schotsmans P., and Gastmans C. (2007), 'Ethics policies on euthanasia in hospitals -- A survey

- in Flanders (Belgium), ' Health Policy, 84, 170-180.
89. Verbeke G., Molenberghs G., and Beunckens L. (2008) ` Formal and Informal Model Selection with Incomplete Data,' Statistical Science, 23, 201-218.
 90. Fieuws S., Verbeke G., Maes B., and Vanrenterghem Y. (2008) ` Predicting renal graft failure using multivariate longitudinal profiles,' Biostatistics, 9, 419-431.
 91. Lemiengre J., Dierckx de Casterlé B., Verbeke G., Van Craen K., Schotsmans P., and Gastmans C. (2008), ` Ethics policies on euthanasia in nursing homes: A survey in Flanders, Belgium,' Social Science and Medicine, 66, 376-386.
 92. Borgermans L., Goderis G., Van Den Broeke C., Mathieu C., Aertgeerts B., Verbeke G., Carbonez A., Ivanova A., Grol R., and Heyrman J. (2008), ` A cluster randomized trial to improve adherence to evidence-based guidelines on diabetes and reduce clinical inertia in primary care physicians in Belgium: Study protocol [NTR 1369],' Implementation Science, 3, 42, doi:10.1186/1748-5908-3-42.
 93. Rizopoulos D., Verbeke G., and Molenberghs G. (2008), ` Shared parameter models under random-effects misspecification,' Biometrika, 95, 63-74.
 94. Hautekiet V., Verbeke G., Vandebroek M., and Geers R. (2008), ` Development of a sanitary risk index for salmonella seroprevalence in Belgian pig farms,' Preventive Veterinary Medicine, 86, 75-92.
 95. Sotto C., Beunckens C., Molenberghs G., Jansen I., and Verbeke G. (2009), ` Marginalizing pattern-mixture models for categorical data subject to monotone missingness,' Metrika, 69, 305-336.
 96. Beunckens C., Sotto C., Molenberghs G. and Verbeke G. (2009), ` A multifaceted sensitivity analysis of the Slovenian public opinion survey data,' Applied Statistics, 58, 171-196.
 97. Tsonaka R., Verbeke G., and Lesaffre E. (2009), ` A semi-parametric shared parameter model to handle nonmonotone nonignorable missingness,' Biometrics, 65, 81-87.
 98. Thilakarathne P.J., Verbeke G., Engelen K., and Marchal K. (2009) ` A nonlinear mixed-effects model for estimating calibration intervals for unknown concentrations in two-color microarray data with spike-ins,' Statistical Applications in Genetics and Molecular Biology, vol. 8, iss. 1, article 5, DOI: 10.2202/1544-6115.1401, available at: <http://www.bepress.com/sagmb/vol8/iss1/art5>.
 99. Rizopoulos D., Verbeke G., and Lesaffre E. (2009), ` Fully exponential Laplace approximations for the joint modelling of survival and longitudinal data,' Journal of the Royal Statistical Society, Series B, 71, 637-654.
 100. Verbeke G. and Molenberghs G. (2010), ` Arbitrariness of models for augmented and coarse data, with emphasis on incomplete-data and random-effects models,' Statistical Modelling, 10, 391-419.
 101. Van Nieuwenhuyse A., Crombez G., Burdorf A., Verbeke G., Masschelein R., Moens G., and Mairiaux P. (2009), ` Physical characteristics of the back are not

- predictive of low back pain in healthy workers: A prospective study,' *BioMed Central: Musculoskeletal Disorders*, 10, doi:10.1186/1471-2474-10-2.
102. Vanneste E., Voet T., Le Caignec C., Ampe M., Konings P., Melotte C., Debrock S., Amyere M., Viikkula M., Schuit F., Fryns J.-P., Verbeke G., D'Hooghe T., Moreau Y., Vermeesch J. (2009), 'Chromosome instability is common in human cleavage-stage embryos,' *Nature Medicine*, 15, 577-583.
 103. Lehnert S., Van Loo P., Thilakarathne P.J., Marynen P., Verbeke G., Schuit F.C. (2009), 'Evidence for co evolution between human miRNAs and Alu-repeats,' *Public Library of Science One (PLOS One)*, 4(2), e4456.
 104. Rizopoulos D., Verbeke G., and Molenberghs G. (2010), 'Multiple-imputation-based residuals and diagnostic plots for joint models of longitudinal and survival outcomes,' *Biometrics*, 66, 20--29..
 105. Serroyen J., Molenberghs G., Aerts M., Vloeberghs E., De Deyn P.P., and Verbeke G. (2010), 'Flexible Estimation of Serial Correlation in Nonlinear Mixed Models,' *Journal of Applied Statistics*, 37, 833-846.
 106. De Wolf J., Duchateau L., Verbeke G., and Schrevers E. (2010) 'Discovering transgenic elite events: Using information from early screening trials for improving experimental design,' *Journal of Agricultural, Biological, and Environmental Statistics*, 15, 403-415.
 107. Creemers A., Hens N., Aerts M., Molenberghs G., Verbeke G., and Kenward M.G. (2010), 'A sensitivity analysis for shared-parameter models for incomplete longitudinal outcomes,' *Biometrical Journal*, , 52, 111-125, doi: 10.1002/bimj.200800235.
 108. Rodriguez-Llanes J.M., Verbeke G., and Finlayson C. (2009) 'Reproductive benefits of high social status in male macaques (Macaca),' *Animal Behaviour*, 78, 643-649.
 109. Molenberghs, G. and Verbeke G. (2009), 'Longitudinal and incomplete clinical studies,' *Journal of the Japanese Society of Computational Statistics*, 22, 1-32.
 110. Serroyen J., Molenberghs G., Verbeke G., and Davidian M. (2009) 'Nonlinear models for longitudinal data,' *The American Statistician*, 63, 378-388.
 111. Faes C., Molenberghs G., Aerts M., Verbeke G., and Kenward M.G. (2009) 'The effective sample size and an alternative small sample degrees of freedom method,' *The American Statistician*, 63, 389-399.
 112. Borgermans L., Goderis G., Van Den Broeke C., Verbeke G., Carbonez A., Ivanova A., Mathieu C., Aertgeerts B., Heyrman J., and Grol R. (2009), 'Interdisciplinary diabetes care Teams operating on the interface between primary and specialty care are associated with improved outcomes of care: Findings from the Leuven Diabetes Project,' *BMC Health Services Research*, 9:179, doi: 10.1186/1472-6963-9-179.
 113. Molenberghs G., Kenward M.G., Verbeke G., and Birhanu T. (2011), 'Pseudo-likelihood estimation for incomplete data,' *Statistica Sinica*, 21, 187-206.
 114. Vangeneugden T., Molenberghs G., Verbeke G., and Demétrio C.G.B. (2010),

- `Marginal correlation from an extended random-effects model for repeated and overdispersed counts,' *Journal of Applied Statistics*, 38, 215-232, doi: 10.1080/02664760903406405.
115. Tsonaka R., Rizopoulos D., Verbeke G., and Lesaffre E. (2010), `Non-ignorable models for intermittently missing categorical longitudinal responses,' *Biometrics*, 66, 834-844.
 116. Creemers A., Hens N., Aerts M., Molenberghs G., Verbeke G., and Kenward M.G. (2011), `Generalized shared-parameter models and missingness at random,' *Statistical Modelling*, 279-310.
 117. Goderis G., Borgermans L., Heyrman J., Van Den Broeke C., Carbonez A., Mathieu C., Verbeke G., and Grol R. (2010), `Monitoring modifiable cardiovascular risk in type 2 diabetes care in general practices: The use of an aggregated z-score,' *Medical Care*, 48, 589-595.
 118. Goderis G., Borgermans L., Grol R., Van Den Broeke C., Boland B., Verbeke G., Carbonez A., Mathieu C., and Heyrman J. (2010), `Start improving the quality of care for people with type 2 diabetes through a general practice support program: A cluster randomized trial. *Diabetes Research and Clinical Practice*,' *Diabetes Research and Clinical Practice*, 88, 56-64.
 119. Molenberghs G., Kenward M.G., and Verbeke G. (2009) `Discussion of likelihood inference for models with unobservables: Another view,' *Statistical Science*, 24, 273-279.
 120. Molenberghs, G. and Verbeke G. (2011), `A note on a hierarchical interpretation for negative variance components,' *Statistical Modelling*, 11, 389-408.
 121. Dejardin D., Lesaffre E., and Verbeke G. (2010), `Joint Modelling of Progression-Free Survival and Death in Advanced Cancer Clinical Trials,' *Statistics in Medicine*, 29, 1724-1734, DOI: 10.1002/sim.3918
 122. Molenberghs G., Verbeke G., Demétrio C.G.B., and Vieira A. (2010), `A family of generalized linear models for repeated measures with normal and conjugate random effects,' *Statistical Science*, 25, 325-347, DOI:10.1214/10-STS328.
 123. Forchheh C.A., Verbeke G., Valkenburg D., Zhao H., Marchal K., Engelen K. (2010), `Statistical approach to assign functional regulators in gene expression compendia,' *Online Journal of Bioinformatics*, 11, 145-154.
 124. Sunaert P., Bastiaens H., Nobels F., Feyen L., Verbeke G., Vermeire E., De Maeseneer J., Willems S., De Sutter A. (2010) `Effect evaluation of the introduction of a Chronic Care Model-based program for type 2 diabetes in Belgium,' *BMC Health Services Research*, 10:207, doi:10.1186/1472-6963-10-207.
 125. Van de Perre V., Permentier L., De Bie S., Verbeke G., Geers R. (2010), `Effect of unloading, lairage, pig handling, stunning and season on pH of pork,' *Meat Science*, 86, 931-937, doi:10.1016/j.meatsci.2010.07.019.
 126. Ghidry W., Lesaffre E. and Verbeke G. (2010) `A comparison of methods for estimating the random effects

- distribution of a linear mixed model,' *Statistical Methods in Medical Research*, 19, 575-600,
doi:10.1177/0962280208091686.
127. De Wolf J., Duchateau L., Verbeke G., and Schrevers E. (2010) `Discovering transgenic elite events: Using information from early screening trials for improving experimental design,' *Journal of Agricultural, Biological, and Environmental Statistics*, 15, 403-415.
 128. Ampe M., Verbeke G., Vanneste E., and Vermeesch J. (2010), `Analysis of array CGH data for the detection of single-cell chromosomal imbalances,' *Online Journal of Bioinformatics*, 11 (2), 224-244.
 129. Molenberghs G. and Verbeke G. (2011), `On the Weibull-Gamma frailty model, its infinite moments, and its connection to generalized log-logistic, logistic, Cauchy, and extreme-value distributions,' *Journal of Statistical Planning and Inference*, 141, 861-868.
 130. Pryseley A., Tchonlafi C., Verbeke G., and Molenberghs G. (2011), `Estimating negative variance components from Gaussian and non-Gaussian data: A mixed models approach,' *Computational Statistics and Data Analysis*, 55, 1071-1085.
 131. Molenberghs G., Verbeke G., and Iddi S. (2011), `Pseudo-likelihood methodology for partitioned large and complex samples,' *Statistics and Probability Letters*, 81, 892-901, doi:10.1016/j.spl.2011.01.012.
 132. Van Beirendonck S., Driessen B., Verbeke G., and Geers R. (2011) `Behaviour of piglets after castration with and without carbon dioxide anaesthesia,' *Journal of Animal Science*, 89, 3310-3317.
 133. Forchheh C.A., Verbeke G., Kasim A., Lin D., Shkedy Z., Talloen W., Göhlmann H.W.H., and Clement L. (2012) `Gene filtering in the analysis of Illumina microarray experiments.' *Statistical Applications in Genetics and Molecular Biology*, 11(2), article 3.
 134. Rchaidia L., Dierckx de Casterlé B., Verbeke G., and Gastmans C. (2011), `Oncology patients' perceptions of the good nurse: an explorative study on the psychometric properties of the Flemish adaptation of the Care-Q instrument,' *Journal of Clinical Nursing*, 21, 1387-1400, 10.1111/j.1365-2702.2011.03861.x.
 135. Drikvandi G.R., Khodadadi A., and Verbeke G. (2012), `Testing variance components in balanced linear growth curve models,' *Journal of Applied Statistics*, 39, 563-572.
 136. Quataert P., Verschelde P., Breine J., Verbeke G., Goetghebeur E., and Ollevier F. (2011) `A diagnostic modelling framework to construct indices of biotic integrity: A case study of fish in the Zeeschelde estuary (Belgium),' *Estuarine, Coastal and Shelf Science*, 94, 222-233.
 137. Wellens N.I.H., Van Lancker A., Flamaing J., Gray L., Moons P., Verbeke G., Boonen S., Milisen K. (2012), ` Interrater reliability of the interRAI Acute Care (interRAI AC),' *Archives of Gerontology and Geriatrics*, 55, 165-172.
 138. Klingels K., Feys H., De Wit L., Jaspers E., Van de Winckel A., Verbeke G., De Cock

- P., Molenaers G. (2012), 'Arm and hand function in children with unilateral cerebral palsy: A one-year follow-up study,' *European Journal of Paediatric Neurology*, 16, 257-265.
139. Nkafu D.A., Verbeke G., De Fraine B., Onghena P., and Van Damme J. (2013), 'Double serial correlation for multilevel growth curves models,' *Quality & Quantity*, 47, 1413-1427.
 140. Borgermans L., Goderis G., Van Den Broeke C., Verbeke G., Carbonez A., Ivanova A., Mathieu C., and Heyrman J. (2011), 'Patients' experiences with patient-centered care are associated with documented outcome of care indicators for diabetes: findings from the Leuven Diabetes Project,' *International Journal of Care Pathways*, 15, 65-75.
 141. Van Beirendonck S., Driessen B., Verbeke G., Permentier, L., Van de Perre, V. and Geers R. (2012) 'Improving survival and animal welfare in piglets by avoiding teeth shortening and tail docking,' *Journal of Veterinary Behavior: Clinical Applications and Research* 7:2, 88-93.
 142. Thilakarathne P.J., Clement L., Lin D., Shkedy Z., Kasim A., Talloen W., Versele M., & Verbeke G. (2011) 'The use of semi-parametric mixed models to analyze PamChip peptide array data: An application to an oncology experiment,' *Bioinformatics*, 27, 2859-2865.
 143. Luts J., Molenberghs G., Verbeke G., Van Huffel S., Suykens J.A.K. (2012), 'A mixed effects least squares support vector machine model for classification of longitudinal data,' *Computational Statistics and Data Analysis*, 56, 611-628.
 144. Van der Borcht K., Van Craenenbroeck E., Lecocq P., Van Houtte M., Van Kerckhove B., Bacheler L., Verbeke G., and van Vlijmen H. (2011), 'Cross-validated stepwise regression for identification of novel non-nucleoside reverse transcriptase inhibitor resistance associated mutations,' *BMC Bioinformatics*, 12:386, doi:10.1186/1471-2105-12-386.
 145. Van de Perre V., Driessen B., Van Thielen J., Verbeke G., Geers R. (2011), 'Comparison of pig behaviour when given a sequence of enrichment objects or a chain continuously,' *Animal Welfare*, 20, 641-649.
 146. Wellens N., Hanon T., Flamaing J., Tournoy J., Moons P., Boonen S., Verbeke G., and Milisen K. (2012) 'Convergent validity of the Cognitive Performance Scale of the interRAI Acute Care and the Mini-Mental State Examination,' *The American Journal of Geriatric Psychiatry*, 636-645, doi: 10.1097/JGP.0b013e31824afaa3.
 147. Molenberghs G., Kenward M.G., Aerts M., Verbeke G., Tsiatis A.A., Davidian M., and Rizopoulos D. (2014), 'On random sample size, ignorability, ancillarity, completeness, separability, and degeneracy: Sequential trials, random sample sizes, and missing data,' *Statistical Methods in Medical Research*, 23, 11-41, doi:10.1177/0962280212445801.
 148. Verbeke G., Fieuws S., Molenberghs G., and Davidian M. (2014) 'The analysis of multivariate longitudinal data: A review,' *Statistical Methods in Medical*

- Research, 23, 42-59, doi: 10.1177/0962280212445834.
149. Konings P., Vanneste E., Jackmaert, S., Ampe M., Verbeke G., Moreau Y., Vermeesch J., and Voet T. (2012) 'Microarray analysis of copy number variation in single cells,' *Nature Protocols*, 7 (2), 281-310.
150. Claes P., Walters M., Shriver M.D., Puts D., Gibson G., Clement J., Baynam G., Verbeke G., Vandermeulen D., and Suetens P. (2012) 'Sexual dimorphism in multiple aspects of 3D facial symmetry & asymmetry defined by spatially-dense geometric morphometrics,' *Journal of Anatomy*, 221, 97-114, doi: 10.1111/j.1469-7580.2012.01528.x
151. Molenberghs G., Verbeke G., Iddi S., and Demétrio C.G.B. (2012) 'A combined beta and normal random-effects model for repeated, overdispersed binary and binomial data,' *Journal of Multivariate analysis*, 111, 94-109, doi: 10.1016/j.jmva.2012.05.005.
152. Drikvandi R., Verbeke G., Khodadadi A., and Partovi Nia V. (2013) 'Testing multiple variance components in linear mixed effects models,' *Biostatistics*, 144-159, doi:10.1093/biostatistics/kxs028.
153. Rikhtehgaran R., Kazemi I., Verbeke G. de Kort W., and Lesaffre E. (2012) 'Piecewise transition models with random effects for unequally-spaced longitudinal measurements,' *Statistical Modelling*, 12, 503-525.
154. Molenberghs G., Verbeke G., Efendi A., Braekers R., and Demétrio C.G.B. (2015) 'A combined gamma frailty and normal random-effects model for repeated, overdispersed time-to-event data,' *Statistical Methods in Medical Research*, 24, 434-452.
155. Molenberghs G., Njeru Njagi E., Kenward M.G., and Verbeke G. (2012), 'Enriched-data problems and essential non-identifiability' *International Journal of Statistics in Medical Research*, 1, 16-44, doi: 10.6000/1929-6029.2012.01.01.02.
156. Kassahun, W., Neyens, T., Molenberghs, G., Faes, C., and Verbeke, G. (2012), 'Modeling overdispersed longitudinal binary data from the Jimma longitudinal studies using a combined beta and normal random-effects model,' *Archives of Public Health*, 70, Article 7.
157. Van Nieuwenhuyse A., Burdorf A., Crombez G., Verbeke G., Masschelein R., Mairiaux P., Moens G., and the BelCoBack Study Group (2013), 'Sick leave due to back pain in a cohort of young workers,' *International Archives of Occupational and Environmental Health*, 86, 887-899, doi:10.1007/s00420-012-0824-y.
158. Rosselle L., Permentier L., Verbeke G., Driessen B., and Geers R. (2013) 'Interactions between climatological variables and sheltering behavior of pastoral beef cattle during sunny weather in a temperate climate,' *Journal of Animal Science*, 91, 943-949.
159. Thilakarathne P.J., Verbeke G., Engelen K., Marchal K., and Lin D. (2013) 'Identifying differentially expressed genes in the absence of replication,'

- International Journal of Bioinformatics Research and Applications, 9, 71-90.
160. Wellens N.I.H., Verbeke G., Flamaing J., Moons P., Boonen S., Tournoy J., and Milisen K. (2013) `Clinical changes in older patients during hospitalization: Responsiveness of the MDS interRAI Acute Care instrument,' Journal of the American Geriatrics Society, 61, 799-804.
 161. Verbeke G. and Molenberghs G. (2013) `The gradient function as an exploratory goodness-of-fit assessment of the random-effects distribution in mixed models,' Biostatistics, 14, 477-490.
 162. Jaspers S., Aerts M., Verbeke G., and Beloeil P.A. (2014) `A new semi-parametric mixture model for interval censored data, with applications in the field of antimicrobial resistance,' Computational Statistics and Data Analysis, 71, 30-42.
 163. Klingels K., Feys H., Molenaers G., Verbeke G., Van Daele S., Hoskens J., Desloovere K., and De Cock P. (2013) `Randomized trial of modified constraint-induced movement therapy with and without an intensive therapy programme in children with unilateral cerebral palsy,' Neurorehabilitation and Neural Repair, 27, 799-807.
 164. Permentier L., Maenhout D., Broekman K., Deley W., Verbeke G., and Geers R. (2013) `Effect of different dietary total Lys: Energy ratios and dietary energy concentrations in phase feeding from weaning to slaughter on performance and carcass measures of crossbred pigs selected for leanness,' Livestock Science, 155, 332-342.
 165. Njeru Njagi E., Molenberghs G., Verbeke G., Kenward M.G., Dendale P., and Willekens, K. (2016). A flexible joint-modelling framework for longitudinal and time-to-event data with overdispersion. Statistical Methods in Medical Research, 25, 1661-1676.
 166. Jaspers S., Aerts M., Verbeke G., and Beloeil P.A. (2014) `Estimation of the wild-type MIC value distribution,' Statistics in Medicine, 33, 289-303, doi: 10.1002/sim.5939.
 167. Molenberghs G., Verbeke G., Iddi S., and Efendi A. (2013) `On the connections between bridge distributions, marginalized multilevel models, and generalized linear mixed models,' International Journal of Statistics and Probability, 2, 4, 1-21, doi:10.5539/ijsp.v2n4p1.
 168. Forchheh A.C., Verbeke G., Kasim A., Lin D., Shkedy Z., Talloen W., Göhlmann H.W.H., and Clement L. (2013) `BeadarrayFilter: An R Package to Filter Beads,' The R Journal, 5, 171-180.
 169. Kassahun W., Neyens T., Molenberghs G., Faes C., and Verbeke G. (2015) 'A joint model for hierarchical continuous and zero-inflated overdispersed count data,' Journal of Statistical Computation and Simulation, 85, 552-571.
 170. De Boever P., Wens B., Forchheh A.C., Valkenburg D., Reynders H., Nelen V., Kleinjans J., Van Larebeke N., Verbeke G., and Schoeters G. (2014) `Longitudinal study of the blood transcriptome in healthy individuals: A

- baseline for applying gene expression analysis in human biomonitoring campaigns,' *Genomics*, 103(1), article 10.1016/j.ygeno.2013.11.006, 31-9.
171. Ivanova A., Molenberghs G., and Verbeke G. (2014) `A model for overdispersed hierarchical ordinal data,' *Statistical Modelling*, 14, 399-416.
 172. Milanzi E., Molenberghs G., Alonso A., Verbeke G., and De Boeck P. (2015) `Reliability measures in item response theory: Manifest versus latent correlation functions,' *British Journal of Mathematical and Statistical Psychology*, 68, 43-64.
 173. Kassahun W., Neyens T., Faes C., Molenberghs G., and Verbeke G. (2014) `A zero-inflated overdispersed hierarchical Poisson model,' *Statistical Modelling*, 14, 434-456.
 174. Van Beirendonck S., Driessen B., Van Thielen J., and Verbeke G. (2014) `The association between sow and piglet behavior,' *Journal of Veterinary Behavior: Clinical Applications and Research*, 9, 107-113.
 175. Milanzi, E., Molenberghs, G., Alonso, A., Kenward, M.G., Tsiatis, A., Davidian, M., and Verbeke G. (2015) `Estimation after a group sequential trial,' *Statistics in Biosciences*, 7, 187-205.
 176. Van der Borgh, K., Verbeke G., and van Vlijmen H. (2014) `Multi-model inference using mixed effects from a linear regression based genetic algorithm,' *BMC Bioinformatics*, 15:88, <http://www.biomedcentral.com/1471-2105/15/88>.
 177. Njeru Njagi E., Molenberghs G., Kenward M.G., Verbeke G., and Rizopoulos D. (2014), `A characterization of missingness at random in a generalized shared-parameter joint modelling framework for longitudinal and time-to-event data, and sensitivity analysis,' *Biometrical Journal*, 56, 1001-1015.
 178. Kassahun W., Neyens T., Molenberghs G., Faes C., and Verbeke G. (2014), `Marginalized multilevel Hurdle and zero-inflated models for overdispersed and correlated count data with excess zeros,' *Statistics in Medicine*, 33, 4402-4419.
 179. Rikhtehgaran R., Kazemi I., and Verbeke G. (2014), `Effects of time-invariant covariates on the estimation of longitudinal trends for transition mixed models,' *Statistics in Medicine*, 33, 4743-4755.
 180. Milanzi E., Molenberghs G., Alonso A., Kenward M.G., Verbeke G., Tsiatis A.A., and Davidian M. (2016) `Properties of estimators in exponential family settings with observation-based stopping rules,' *Journal of Biometrics and Biostatistics*, 7(1), article 272, <http://dx.doi.org/10.4172/2155-6180.1000272>.
 181. Maertens de Noordhout C., Devleeschauwer B., Angulo F.J., Verbeke G., Haagsma J., Kirk M., Havelaar A., Speybroeck N. (2014) `The global burden of listeriosis: a systematic review and meta-analysis,' *The Lancet Infectious Diseases*, 14(11), 1073-1082.
 182. Soubry A., Verbeke G., and Hoyo C. (2014) `Do early paternal exposures to lifestyle factors such as smoking increase the risk of chronic diseases in the offspring ?,' *European Journal of Human Genetics*, 22, 1341-1342.

183. Vangeneugden T., Molenberghs G., Verbeke G., and Demétrio C.G.B. (2012) `Marginal correlation from logit- and probit-beta-normal models for hierarchical binary data,' *Communications in Statistics - Theory and Methods*, 43, 4164-4178.
184. Efendi A., Drikvandi R., Verbeke G., and Molenberghs G. (2017) `A goodness-of-fit test for the random-effects distribution in mixed models,' *Statistical Methods in Medical Research*, 26, 970-983.
185. Ivanova A., Molenberghs G., and Verbeke G. (2016) `Mixed models approaches for joint modeling of different types of responses,' *Journal of Biopharmaceutical Statistics*, 26, 601-618.
186. Permentier L., Maenhout D., Deley W., Broekman K., Vermeulen L., Agten S., Verbeke G., Driessen B., Aviron J., Geers R. (2015), `Lung lesions increase the risk of reduced meat quality of slaughter pigs,' *Meat Science*, 108, 106-108.
187. van Achterberg T., van Gaal B.G.I., Geense W.W., Verbeke G., van der Vleuten C., and Schoonhoven L. (2016), `Completeness of assisted bathing in nursing homes related to dementia and bathing method. Results from a secondary analysis of cluster-randomised trial data,' *International Journal of Older People Nursing*, 11, 121-129.
188. Jaspers S., Verbeke G., Böhning D., and Aerts M. (2016), `Application of the Vertex Exchange Method to estimate a semi-parametric mixture model for the MIC density of *Escherichia coli* isolates tested for susceptibility against ampicillin,' *Biostatistics*, 17, 94-107.
189. Vermeulen L., Van de Perre V., Permentier L., De Bie S., Verbeke G., and Geers R. (2015), `Sound levels above 85 dB pre-slaughter influence pork quality,' *Meat Science*, 100, 269-274.
190. Ivanova A., Molenberghs G., and Verbeke G. (2017) `Fast and highly efficient pseudo-likelihood methodology for large and complex ordinal data,' *Statistical Methods in Medical Research*, 26, 2758-2779.
191. Van der Elst W., Hermans L., Verbeke G., Kenward M., Nassiri V., and Molenberghs G. (2016), `Unbalanced cluster sizes and rates of convergence in mixed-effects models for clustered data,' *Journal of Statistical Computation and Simulation*, 86, 2123-2139.
192. Rakhmawati T., Molenberghs G., Verbeke G., and Faes C. (2016), `Local influence diagnostics for incomplete overdispersed longitudinal counts,' *Journal of Applied Statistics*, 43, 1722-1737.
193. Bruckers L., Molenberghs G., Verbeke G., and Geys H. (2016), `Detecting influential observations in a model-based cluster analysis,' *Statistical Methods in Medical Research*, in press.
194. Vansteelandt K. and Verbeke G. (2016), `A mixed model to disentangle variance and serial autocorrelation in affective instability using ecological momentary assessment data,' *Multivariate Behavioral Research*, 51, 446-465.
195. Rakhmawati T., Molenberghs G., Verbeke G., and Faes C. (2016), `Local

- influence diagnostics for hierarchical count data models with overdispersion and excess zeros,' *Biometrical Journal*, 58, 1390-1408.
196. Rakhmawati T., Molenberghs G., Verbeke G., and Faes C. (2017), 'Local influence diagnostics for generalized linear mixed models with overdispersion,' *Journal of Applied Statistics*, 44, 620-641.
 197. Drikvandi R., Verbeke G. and Molenberghs G. (2017), 'Diagnosing misspecification of the random-effects distribution in mixed models,' *Biometrics*, 73, 63-71.
 198. Rikhtehgaran R., Kazemi I., and Verbeke G. (2017), 'A comparative study on estimation methods to deal with the endogeneity in linear random-intercept models with an extension,' *Journal of Statistical Computation and Simulation*, 87, 171-186.
 199. Van der Elst W., Molenberghs G., Hilgers R.D., Verbeke G., and Heussen N. (2016) 'Estimating the reliability of repeatedly measured endpoints based on linear mixed-effects models. A tutorial,' *Pharmaceutical Statistics*, 15, 486-493.
 200. Ivanova A., Molenberghs G., and Verbeke G. (2017) 'Mechanism for missing data incorporated into joint modelling of ordinal responses,' *Journal of the Royal Statistical Society, Series C*, 66, 1049-1064.
 201. De Mulder W., Molenberghs G., and Verbeke G. (2017), 'A sensitivity analysis of probabilistic sensitivity analysis in terms of the density function for the input variables,' *Journal of Statistical Computation and Simulation*, 87, 1429-1445.
 202. Baghfalakia T., Ganjali M., and Verbeke G. (2016), 'A shared parameter model of longitudinal measurements and survival time with heterogeneous random-effects distribution,' *Journal of Applied Statistics*, 44, 2813-2836.
 203. Verbeke G. and Molenberghs G. (2017), 'Modeling through latent variables,' *Annual Review of Statistics and Its Application*, 4, 267-282.
 204. Hermans L., Nassiri V., Molenberghs G., Kenward M.G., Van der Elst W., Aerts M., and Verbeke G. (2017), 'Fast, closed-form, and efficient estimators for hierarchical models with AR(1) covariance and unequal cluster sizes,' *Communications in Statistics - Simulation and Computation*, in press.
 205. Oliveira I.R.C., Molenberghs G., Verbeke G., C.G.B. Demétrio C.G.B., and Dias C.T.S. (2017), 'Negative variance components for non-negative hierarchical data with correlation, over-, and/or underdispersion,' *Journal of Applied Statistics*, 44, 1047-1063.
 206. Nassiri V., Ivanova A., Molenberghs G., and Verbeke G. (2017), 'Fast precision estimation in high-dimensional multivariate joint models,' *Biometrical Journal*, 59, 1221-1231.
 207. Hermans L., Nassiri V., Molenberghs G., Kenward M.G., Van der Elst W., Aerts M., and Verbeke G. (2018), 'Clusters with unequal size: Maximum likelihood versus weighted estimation in large samples,' *Statistica Sinica*, 28, 1107-1132.
 208. Verbeke G., Fieuws S., Molenberghs G., and Davidian M. (2017), 'The analysis of multivariate longitudinal data: A review. Response to letter of M.

- Gebregziabher,' Statistical Methods in Medical Research, 26, 112-112.
209. Lovik A., Nassiri V., Verbeke G., Molenberghs G., and Sodermans A.K. (2017), `Psychometric properties and comparison of different techniques for factor analysis on the Big Five Inventory from a Flemish sample,' Personality and Individual Differences, 117, 122-129.
210. De Mulder W., Molenberghs G., and Verbeke G. (2018), `A generalization of inverse distance weighting and an equivalence relationship to noise-free Gaussian process interpolation via Riesz representation theorem,' Linear and Multilinear Algebra, 66,1054–1066.
211. Molenberghs, G., Verbeke G., and Demétrio C.G.B. (2017), `Hierarchical models with normal and conjugate random effects: A review,' Statistics and Operations Research Transactions (SORT), 41, 191-254.
212. Leblanc, J., Hejblum G., Costagliola D., Durand-Zaleski I., Lert F., de Truchis P., Verbeke G., Rousseau A., Piquet H., Simon F., Pateron D., Simon T., and Crémieux A.-C. (2018), `Targeted HIV screening in eight emergency departments: The DICI-VIH cluster-randomized two-period crossover trial,' Annals of Emergency Medicine, 72, 41-53.
213. Amini P., Verbeke G., Zayeri F., Mahjub H., Maroufizadeh S., and Moghimbeigi A. (2018) `Longitudinal joint modelling of binary and continuous outcomes: A comparison of Bridge and Normal distributions,' Epidemiology Biostatistics and Public Health, 15, e12755, 1-11.
214. Lovik, A., Verbeke G., and Molenberghs, G. (2017), `Evaluation of a very short test to measure the Big Five personality factors on a Flemish sample,' Journal of Psychological and Educational Research, 25, 7-17.
215. Rakhmawati T., Molenberghs G., Verbeke G., and Faes C. (2017), `Local influence diagnostics for hierarchical finite-mixture random-effects models,' Biometrical Journal, in press.
216. Nassiri V., Lovik A., Molenberghs G., and Verbeke G. (2017), `On using multiple imputation for exploratory factor analysis of incomplete data,' Behavior Research Methods, in press.
217. Molenberghs G., Poveda A., Kassahun W., Neyens T., Faes C., and Verbeke G. (2017) 'Marginalized multi-level hurdle and zero-inflated models for overdispersed and correlated count data with excess zeros. Response to letter of G. Inan,' Statistics in Medicine, in press.
218. Hermans L., Molenberghs G., Aerts M., Kenward M.G., and Verbeke G. (2018) `A tutorial on the practical use and implication of complete sufficient statistics,' International Statistical Review, 86, 403-414.
219. Coemans M., Süsal C., Döhler B., Anglicheau D., Giral M., Bestard O., Legendre C., Emonds M.-P., Kuypers D., Molenberghs G., Verbeke G., and Naesens M. (2018) 'Short- and long-term graft survival after kidney transplantation in Europe between 1986 and 2015,' Kidney International, in press.
220. Luyts M., Molenberghs G., Verbeke G., Matthijs K., Ribeiro E.E., Demétrio C. G.

- B., and Hinde J. (2019) 'A Weibull-count approach for handling under- and overdispersed clustered data structures,' *Statistical Modelling*, 19, 569-589.
221. De Mulder W., Rengs B., Molenberghs G., Fent T., and Verbeke G. (2018) 'Extending Gaussian process emulation using cluster analysis and artificial neural networks to fit big training sets,' *Journal of Simulation*, 13, 195-208.
222. Klingels K., Meyer S., Mailleux L., Simon-Martinez C., Hoskens J., Monbaliu E., Verheyden G., Verbeke G., Molenaers G., Ortibus E., and Feys H. (2018) 'Time course of upper limb function in children with unilateral cerebral palsy: A five-year follow-up study,' *Neural Plasticity*, in press.
223. Flórez A.J., Molenberghs G., Verbeke G., and Alonso Abad A. (2019) 'A closed-form estimator for meta-analysis and surrogate markers evaluation,' *Journal of Biopharmaceutical Statistics*, 29, 318-332.
224. Hermans L., Ivanova A., Sotto C., Molenberghs G., Verbeke G., and Kenward M.G. (2020) 'Doubly Robust Pseudo-likelihood for incomplete hierarchical binary data,' *Statistical Modelling*, 20, 42-57.
225. Nassiri V., Molenberghs G., Verbeke G., and Barbosa-Breda J. (2020) 'Iterative multiple imputation: a framework to determine the number of imputed datasets,' *The American Statistician*, 74, 125-136.
226. Alonso A., Meyvisch P., Van der Elst W., Molenberghs G., and Verbeke G. (2019) 'A reflection on the possibility of finding a good surrogate,' *Journal of Biopharmaceutical Statistics*, 29, 468-477.
227. Coemans M., Van Loon E., Lerut E., Kuypers D., Sprangers B., Senev A., Emonds M.P., Gillard P., Mathieu C., Van Keer J., Callemeyn J., Daniëls E., Sichien J., Verbeke G., and Naesens M. (2019) 'Occurrence of diabetic nephropathy after renal transplantation despite intensive glycemic control: an observational cohort study,' *Diabetes Care*, in press.
228. Tran T.D., Lesaffre E., Verbeke G., and Duyck J. (2019) 'Modeling local dependence in latent vector autoregressive models,' *Biostatistics*, in press.
229. De Mulder W., Molenberghs G., and Verbeke G. (2019) 'An interpretation of radial basis function networks as zero-mean Gaussian process emulators in cluster space,' *Journal of Computational and Applied Mathematics*, in press.
230. Flórez A.J., Molenberghs G., Verbeke G., Kenward M.G., Mamouris P. and Vaes B. (2019) 'Fast two-stage estimator for clustered count data with overdispersion,' *Journal of Statistical Computation and Simulation*, in press.
231. Ariyo O., Quintero L.A., Muñoz J., Verbeke G., and Lesaffre E. (2019) 'Bayesian model selection in linear mixed models for longitudinal data,' *Journal of Applied Statistics*, in press.
232. Quintero A., Verbeke G., Bruyneel L., and Lesaffre E. (2021) 'Bayesian analysis of differential effects in multi-group regression methods,' *Statistical Modelling*, 21, 244-263.
233. Lovik A., Nassiri V., Verbeke G., and Molenberghs G. (2020) 'A Modified Tucker's congruence Coefficient for factor matching,' *Methodology*, 16, 59-74.

234. Marquart L. and Verbeke G. (2019) `Vertex Exchange Method (VEM) for non-parametric estimation of mixing distributions in logistic mixed models,' Statistical Modelling, in press.
235. Ariyo O., Lesaffre E., Verbeke G., and Quintero L.A. (2022) `Model selection for Bayesian linear mixed models with longitudinal data. Sensitivity to the choice of priors.' Communications in Statistics - Simulation and Computation, 51, 1591-1615.
236. Tapak L., Hamidi O., Amini P., and Verbeke G. (2019) `Random effect exponentiated-exponential geometric model for clustered/longitudinal zero-inflated count data,' Journal of Applied Statistics, in press.
237. Hermans L., Molenberghs G., Verbeke G., Kenward M.G., Mamouris P., and Vaes B. (2022) `Optimal weighted estimation versus Cochran-Mantel-Haenszel,' Communications in Statistics - Simulation and Computation, 51, 3645-3659.
238. Dumont S., Chys B., Meuleman C., Verbeke G., Joniau S., and Van der Aa F. (2021) `Prophylactic ureteral catheterization in the intraoperative diagnosis of iatrogenic ureteral injury,' Acta Chirurgica Belgica, 121, 261-266.
239. Tran T.D., Lesaffre E., Verbeke G., and Duyck J. (2021) `Latent Ornstein-Uhlenbeck models for Bayesian analysis of multivariate longitudinal categorical responses,' Biometrics, 77, 689-701.
240. Senev A., Coemans M., Lerut E., Van Sandt V., Kerkhofs J., Daniëls L., Vanden Driessche M., Compennolle V., Sprangers B., Van Loon E., Callemeyn J., Claas F., Tambur A.R., Verbeke G., Kuypers D., Emonds M.P., and Naesens M. (2020) `The impact of eplet mismatch load on de novo occurrence of donor-specific anti-HLA antibodies, rejection, and graft failure after kidney transplantation: an observational cohort study,' Journal of the American Society of Nephrology, in press.
241. Tran T.D., Lesaffre E., Verbeke G., and Molenberghs G. (2020) `Serial correlation structures in latent linear mixed models for analysis of multivariate longitudinal ordinal responses,' Statistics in Medicine, 40, 578-592.
242. Molenberghs G., Buyse M., Abrams S., Hens N., Beutels P., Faes C., Verbeke G., Van~Damme P., Goossens H., Neyens T., Herzog S., Theeten H., Pepermans K., Alonso Abad A., Van~Keilegom I., Speybroeck N., Legrand C., De~Buyser S., and Hulstaert F. (2020) `Infectious diseases epidemiology, quantitative methodology, and clinical research in the midst of the COVID-19 pandemic: Perspective from a European country,' Contemporary Clinical Trials, 99, Art. Nr. 106189.
243. Mahdijeh Z., Kazemi I., and Verbeke G. (2022) `A copula-based approach to joint modelling of multiple longitudinal responses with multimodal structures,' Statistical Modelling, 22, 327-348.
244. Vanassche T., Engelen M.M., Van Thillo Q., Wauters J., Gunst J., Wouters C., Vandenbriele C., Rex S., Liesenborghs L., Wilmer A., Meersseman P., Van den Berghe G., Dauwe D., Verbeke G., Thomeer M., Fizez T., Mesotten D., Rutten D.,

- Heytens L., Dapper I., Tuyls S., De Tavernier B., Verhamme P., and DAWn consortium members (2020) 'A randomized, open-label, adaptive, proof-of-concept clinical trial of modulation of host thromboinflammatory response in patients with COVID-19: the DAWn-Antico study,' *Trials*, 21, (Art N° 1005).
245. Devos T., Geukens T., Schauvlieghe A., Arien K.K., Barbezange C., Cleeren M., Compennolle V., Dauby N., Desmecht D., Grimaldi D., Lambrecht B.N., Luyten A., Maes P., Moutschen M., Romano M., Seyler L., Nevessignsky M.T., Vandenberghe K., van Griensven J., Verbeke G., Vlieghe E., Yombi J.C., Liesenborghs L., Verhamme P., and Meyfroidt, G. (2020). 'A randomized, multicentre, open-label phase II proof-of-concept trial investigating the clinical efficacy and safety of the addition of convalescent plasma to the standard of care in patients hospitalized with COVID-19: the Donated Antibodies Working against nCoV (DAWn-Plasma) trial,' *Trials*, 21, Art. nr. 981.
246. Gyselinck I., Liesenborghs L., Landeloos E., Belmans A., Verbeke G., Verhamme P., Vos R., Janssens W. (2021). 'Direct antivirals working against the novel coronavirus: azithromycin (DAWn-AZITHRO), a randomized, multicenter, open-label, adaptive, proof-of-concept clinical trial of new antivirals working against SARS-CoV-2-azithromycin trial,' *Trials*, 22, Art. nr. 126.
247. Liesenborghs L., Spriet I., Jochmans D., Belmans A., Gyselinck I., Teuwen L.A., ter Horst S., Dreesen E., Geukens T., Engelen M., Landeloos E., Geldhof V., Ceunen H., Debaveye B., Vandenberg B., Van der Linden L., Jacobs S., Langendries L., Boudewijns R., Weynand B., Vanassche T., Devos T., Meyfroidt G., Janssens W., Vos R., Vermeersch P., Wauters J., Verbeke G., De Munter P., Kaptein S.J.F., Duarte Rocha-Pereira J., Delang L., Van Wijngaerden E., Neyts J., and Verhamme P. (2021) 'Itraconazole for COVID-19: preclinical studies and a proof-of-concept randomized clinical trial,' *EBioMedicine*, 66, 103288.
248. Amini P., Moghimbeigi A., Zayeri F., Tapak L., Maroufizadeh S., and Verbeke G. (2021) 'Longitudinal joint modelling of ordinal and overdispersed count outcomes: A Bridge distribution for the ordinal random intercept,' *Computational and Mathematical Methods in Medicine*, Article ID 5521881.
249. Coemans M., Senev A., Van Loon E., Lerut E., Sprangers B., Kuypers D., Emonds M.P., Verbeke G., and Naesens M. (2021) 'The evolution of histological changes suggestive of antibody-mediated injury, in the presence and absence of donor-specific anti-HLA antibodies,' *Transplant International*, in press.
250. Mwangi M., Verbeke G., Njeru Njagi E., Mwalili S., Ivanova A., Bukania Z.N., and Molenberghs G. (2021) 'Improved longitudinal data analysis for cross-over design settings, with a piecewise linear mixed-effects model,' *Communications in Statistics: Case Studies, Data Analysis and Applications*, 7, 413-431.
251. Coemans M., Verbeke G., and Naesens M. (2021) 'A joint transition model for evaluating eGFR as biomarker for rejection after kidney transplantation,' *Statistical Modelling*, in press.
252. Ariyo O., Lesaffre E., Verbeke G., and Quintero A. (2021) 'Bayesian model

- selection for longitudinal count data,' *Sankhya B*, in press.
253. Verbeeck J., Faes C., Neyens T., Hens N., Verbeke G., Deboosere P., and Molenberghs G. (2023) `A linear mixed model to estimate COVID-19-induced excess mortality.' *Biometrics*, 79, 417-425.
 254. Ariyo O., Lesaffre E., Verbeke G., Huisman M., Rijnhart J., Heymans M., and Twisk J. (2022) `Bayesian model selection for multilevel mediation models,' *Statistica Neerlandica*, 76, 219-235.
 255. Ong F., Wang J., Van der Elst W., Verbeke G., Molenberghs G., and Alonso A. (2022) `Implementing the meta-analytic approach for the evaluation of surrogate endpoints in SAS and R: A word of caution,' *Journal of Biopharmaceutical Statistics*, 32, 705-716.
 256. Malengier-Devlies B., Bernaerts E., Ahmadzadeh K., Filtjens J., Vandenhoute J., Broeckx B., Burton O., De Visscher A., Mitera T., Berghmans N., Verbeke G., Liston A., Lambrechts D., Proost P., Wouters C., and Matthys P. (2022) `Role for Granulocyte colony-stimulating factor in neutrophilic extramedullary myelopoiesis in a murine model of systemic juvenile idiopathic arthritis,' *Arthritis & Rheumatology*, in press.
 257. Conrad N., Verbeke G., Molenberghs G., Goetschalckx L., Callender T., Cambridge G., Mason J.C., Rahimi K., McMurray J.J.V., and Verbakel J.Y. (2022) `Autoimmune disorders and cardiovascular risk: A population-based study on 20 autoimmune disorders and 12 cardiovascular diseases in 22 million individuals,' *The Lancet*, in press.
 258. Coemans M., Verbeke G., Döhler B., Süsal C., and Naesens M. (2022) `Bias by censoring for competing events in survival analysis,' *The British Medical Journal*, in press.
 259. Verbeeck J., Fajgenblat M., Willem L., Neyens T., Faes C., Hens N., Deboosere P., Verbeke G., and Molenberghs G. (2022) `Application of a state-space model to estimate COVID-19 mortality,' *Medical Research Archives*, in press.
 260. Delporte M., Fieuws S., Molenberghs G., Verbeke G., Wanyama S.S., Hatziagorou E., and De Boeck C. (2022) `A joint normal-binary(probit) model,' *International Statistical Review*, 90, S1, S37-S51.
 261. De Witte D., Delporte M., Molenberghs G., Verbeke G., Demarest S., and Hoorens V. (2022) `Self-uniqueness beliefs and adherence to recommended precautions. A 5-wave longitudinal COVID-19 study,' *Social Science & Medicine*, in press.
 262. Delporte M., Luyts M., Molenberghs G., Verbeke G., Demarest S., and Hoorens V. (2022) `Do optimism and moralization predict vaccination? A 5-wave longitudinal study,' *Health Psychology*, in press.
 263. Conrad N., Misra S., Verbakel J.Y., Verbeke G., Molenberghs G., Taylor P.N., Mason J., Sattar N., McMurray J.J.V., McInnes I.B., Khunti K., and Cambridge G. (2023) `Incidence, prevalence and co-occurrence of autoimmune disorders, trends over time and by age, sex and socioeconomic status. A population-

- based study in 22 million individuals,' The Lancet, in press.
264. Delporte M., De Coninck D., d'Haenens L., Luyts M., Verbeke G., Molenberghs G., and Matthijs K. (2023) `A longitudinal perspective on perceived vulnerability to disease during the COVID-19-pandemic in Belgium,' Health Promotion International, in press.
 265. Sarmiento L.A., Lesaffre E., and Verbeke G. (2023) `Bayesian exploratory factor analysis via Gibbs sampling,' Journal of Educational and Behavioural Statistics, in press.
 266. De Witte D., Alonso Abad A., Molenberghs G., Verbeke G., Sanchez L., Mas-Bermejo P., and Neyens T. (2023) `A multivariate spatio-temporal model for the incidence of imported COVID-19 cases and COVID-19 deaths in Cuba,' Spatial and Spatio-temporal Epidemiology, in press.
 267. Delporte M., De Witte D., Demarest S., Verbeke G., Molenberghs G., and Hoorens V. (2023) `Do health beliefs about COVID-19 predict morbidity? A longitudinal study," Social and Personality Psychology Compass, 17(11), e12852.
 268. Cleenders E., Koshy P., Lagrou K., Andrei G., Kuypers D., Lerut E., Mertens K., Mineeva O., Senev A., Snoeck R., Sprangers B., Tinel C., Van Craenenbroeck A., van den Brand J., Van Loon E., Van Ranst M., Verbeke G., Coemans M., and Naesens M. (2023) `Histological screening for BK polyomavirus nephropathy following viral replication in plasma: An observational cohort study,' Kidney International, in press.
 269. Sercundes R.K., Molenberghs G., Verbeke G., Demétrio C.G.B., da Silva S.C., Moral R.A. (2024) `A combined overdispersed longitudinal model for nominal data,' Statistical Modelling, 24, 581-598.
 270. Tran T.D., Alonso Abad A., Verbeke G., Molenberghs G. and Van Mechelen I. (2023) `Reflections on the concept of optimality of single decision point treatment regimes,' Biometrical Journal, in press.
 271. Mamouris P., Nassiri V., Verbeke G., Janssens A., Vaes B., and Molenberghs G. (2023) `A longitudinal transition imputation model for categorical data applied to a large registry dataset,' Statistics in Medicine, in press.
 272. Drikvandi R., Verbeke G., and Molenberghs G. (2024) `A framework for analysing longitudinal data involving time-varying covariates,' Annals of Applied Statistics, 18, 1618-1641.
 273. Mwangi M., Molenberghs G., Njeru Njagi E., Mwalili S., Braekers R., Flórez A.J.,

- Gachau S., Bukania Z.N., and Verbeke G. (2023) `Pairwise fitting of piecewise mixed models for the joint modeling of multivariate longitudinal outcomes in a randomised crossover trial,' *Biometrical Journal*, in press.
274. Ferguson L.D., Molenberghs G., Verbeke G., Rahimi K., Rao S., McInnes I.B., McMurray J.J.V., Sattar N., and Conrad N. (2024) `Gout and incidence of twelve cardiovascular diseases: A case-control study including 152663 individuals with gout and 709981 matched controls,' *The Lancet Rheumatology*, 6, e156–67.
275. Alonso Abad A., Ong F., Stijven F., Van der Elst W., Molenberghs G., Van Keilegom I., Verbeke G., and Callegaro A. (2024) `An information-theoretic approach for the assessment of a continuous outcome as a surrogate for a binary true endpoint based on causal inference: Application to vaccine evaluation,' *Statistics in Medicine*, 43, 1083-1102.
276. Mwangi M., Verbeke G., Njeru Njagi E., Florez A.J., Mwalili S., Ivanova A., Bukania Z.N., and Molenberghs G. (2024) `Evaluation of a flexible piecewise linear mixed-effects model in the analysis of randomized cross-over trials,' *Pharmaceutical Statistics*, 23, 370-384.
277. De Witte D., Alonso Abad A., Neyens T., Verbeke G., and Molenberghs G. (2024) `A joint penalized spline smoothing model for the number of positive and negative COVID-19 tests,' *PLOS ONE*, in press.
278. Conrad N., Molenberghs G., Verbeke G., Zaccardi F., Lawson C., Friday J.M., Jhund P.S., Cleland J.G., Sattar N., Rahimi K., Khunti K., Budts W., and McMurray J.J.V. (2024) `Trends in cardiovascular disease incidence among 22 million people in the UK over 20 years: Population based study,' *The British Medical Journal*, 385:e078523.
279. Delporte M., Molenberghs G., Fieuws S., and Verbeke G. (2024) `A joint normal-ordinal (probit) model for ordinal and continuous longitudinal data,' *Biostatistics*, in press.
280. Cleenders E., Coemans M., Callemeyn J., Emonds M.P., Kuypers D., Senev, A., Van Loon E., Wellekens K., Verbeke G., and Naesens M. (2024) `The change point of kidney function stabilization in the initial period after transplantation: An observational cohort study,' *Kidney International*, in press.
281. Coemans M., Hien Tran T., Döhler B., Massie A.B., Verbeke G., Segev D.L., Gentry S.E., and Naesens M. (2024) `A competing risks model to estimate the risk of graft failure and patient death after kidney transplantation using continuous donor-recipient age combinations,' *American Journal of Transplantation*, in

press.

282. Ong F., Molenberghs G., Callegaro A., Van der Elst W., Stijven F., Verbeke G., Van Keilegom I., and Alonso A. (2024) 'Assessing the operational characteristics of the individual causal association as a metric of surrogacy in the binary continuous setting,' *Pharmaceutical Statistics*, in press.
283. Fajgenblat M., Molenberghs G., Verbeeck J., Willem L., Crèvecoeur J., Faes C., Hens N., Deboosere P., Verbeke G., and Neyens T. (2024) 'Evaluating the direct effect of vaccination and non-pharmaceutical interventions during the COVID-19 pandemic in Europe,' *Communications Medicine*, 4, Article number 178.
284. Cleenders E., Coemans M., Mineeva-Sangwo O., Koshy P., Kuypers D., Verbeke G., and Naesens M. (2024) 'An observational cohort study of kidney function evolution following increased BK viral replication,' *Kidney International*, in press.
285. Delporte M., Verbeke G., Fieuws S., and Molenberghs G. (2024) 'Accelerating computation: A pairwise fitting technique for multivariate probit models,' *Computational Statistics and Data Analysis*, in press.
286. Delporte M., Aerts M., Verbeke G., and Molenberghs G. (2024) 'Analysing matched continuous longitudinal data: A review,' *Statistical Methods in Medical Research*, in press.
287. Da~Silva B.G., Demétrio C.G.B., Sermarini R.A., Molenberghs G., Verbeke G., Behling A., Marques E., Accioly Y., and Figura M.A. (2024) 'Height-diameter models: A comprehensive review with new insights on relationships to generalized linear models and differential equations,' *International Forestry Review*, 26, 398-419.

Projects

Memberships

Responsibilities:

1. Director of the Leuven Biostatistics & statistical Bioinformatics Centre (L-Biostat), 2008-2024.
2. Vice-director of the Interuniversity Institute for Biostatistics & statistical Bioinformatics (I-Biostat), 2008-2024.
3. Chair ad interim of the Department of Public Health and Primary Care, Biomedical Sciences Group, KU Leuven, October 2012 - December 2013
4. Chair, Department of Public Health and Primary Care of KU Leuven, January 2014 - July 2016, August 2016 - July 2020
5. Representative of the Faculty of Medicine in the Bureau of the Leuven Statistics

- Research Centre (LStat), 2002-...
6. Joint editor of the Journal of The Royal Statistical Society, Series A: Statistics in Society, 2005-2008.
 7. Co-Editor of Biometrics, journal of the International Biometric Society (IBS), 2010-2012.
 8. Elected International Representative in the Board of Directors of the American Statistical Association (ASA), 2008-2010.
 9. Member of the Committee on International Relations of the American Statistical Association (ASA), 2008-2010.
 10. Expert-statistician for the Committee for Medicinal Products for Human Use (CHMP), of the European Medicines Agency (EMA), 2004-...
 11. President-elect of 'The Quetelet Society, Belgian region of The International Biometric Society,' January 1, 2002 - December 31, 2003.
 12. Elected representative of the Belgian region in the 'Council of the International Biometric Society,' January 1, 2002 - December 31, 2005.
 13. Elected representative of the Belgian region in the 'Council of the International Biometric Society,' January 1, 2006 - December 31, 2009.
 14. Chair of 'The Editorial Advisory Committee' of 'The International Biometric Society,' January 1, 2008 - December 31, 2009.
 15. Program chair for the 18th International Workshop on Statistical Modelling (IWSM), Leuven, Belgium, July 2003.
 16. Program chair for the 23rd International Biometric Conference (IBC), Montreal, Quebec, Canada, July 2006.
 17. Coordinator Biostatistics for the Federal Agency for Medicines and Health Products (FAGG), Belgium, 2010-...
 18. Member of the accreditation committee for the ASA program for accreditation as professional statistician by the American Statistical Association, May 2010 - December 2013.
 19. Observer representing Belgium in the Biostatistics Working Party of the European Medicines Agency (EMA), 2012-2023.
 20. Elected council member of the Royal Statistical Society (United Kingdom), January 1, 2013 - December 31, 2016.
 21. Member of the search committee for an International Representative in the Board of Directors of the American Statistical Association (period 2014-2016), 2013.
 22. Member of the Professional Development Centre Committee of the Royal Statistical Society (United Kingdom), January 1, 2013 - December 31, 2016.
 23. Member of the General Doctoral Committee responsible for approving all provisional doctoral plans within the Group of Biomedical Sciences of KU Leuven, October 2012 - ...
 24. Team leader in the accreditation committee and member of the accreditation steering committee for the ASA program for accreditation as professional

- statistician by the American Statistical Association, January 2014 - December 2016.
25. Member of the KU Leuven Animals Ethics Committee authorized to (1) determine whether experiments on animals meet legal requirements, and (2) gather information and/or advice (both within and outside the University) required to perform its duties, 2014 - 2018, 2019 - 2023.
 26. Vice-chair of the Leuven Statistics Research Center (LStat) of KU Leuven, August 2014 - July 2015, August 2017 - July 2018.
 27. Chair of the Leuven Statistics Research Center (LStat) of KU Leuven, August 2015 - July 2017.
 28. President-Elect of the International Biometric Society (IBS), January 2019 - December 2019.
 29. President of the International Biometric Society (IBS), January 2020 - December 2021.
 30. Outgoing President of the International Biometric Society (IBS), January 2022 - December 2022.
 31. Member of the Methodology European Specialised Expert Community (ESEC) of the Methodology Working Party (MWP) of the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA), 2023-...

Honours & Awards:

1. Excellence-In-Continuing-Education Award for 2002, selected by the Advisory Committee on Continuing Education of the American Statistical Association, for the short course 'Longitudinal data analysis,' taught by Verbeke G. and G. Molenberghs, at the Joint Statistical Meetings, New-York City, U.S.A., August 13, 2002.
2. Excellence-In-Continuing-Education Award for 2004, selected by the Advisory Committee on Continuing Education of the American Statistical Association, for the short course 'Longitudinal and Incomplete Data,' taught by Verbeke G. and G. Molenberghs, at the Joint Statistical Meetings, Toronto, Canada, August 8, 2004.
3. Elected Fellow of the American Statistical Association, 'For outstanding contributions to methodological and collaborative research on mixed models, longitudinal data, and incomplete data; for dedication to statistical education and scientific consultancy, and for editorial and administrative service to profession,' Minneapolis, U.S.A., August 9, 2005.
4. Elected member of the International Statistical Institute (2007 - ...)
5. International Biometric Society Award for the best Biometrics paper in 2006 for the paper 'Pairwise Fitting of Mixed Models for the Joint Modeling of Multivariate Longitudinal Profiles', Fieuws S. and Verbeke G., Biometrics (2006), 62, 424-431. The award is presented at the International Biometric Conference 2008, Dublin, Ireland, on July 15, 2008.

6. Excellence-In-Continuing-Education Award for 2008, selected by the Advisory Committee on Continuing Education of the American Statistical Association, for the short course 'Models for discrete repeated measures,' taught by Verbeke G. and G. Molenberghs, at the Joint Statistical Meetings, Denver, U.S.A., August 5, 2008.
7. Promotor (with G. Molenberghs and M. Aerts) of the 2010-2011 Princess Lilian Foundation visiting professorship for Prof. Anastasios A. Tsiatis (University of North Carolina, U.S.A.).
8. Accredited as professional statistician by the American Statistical Association (ASA), 2010-2016, 2017-2022.
9. Excellence-In-Continuing-Education Award for 2011, selected by the Advisory Committee on Continuing Education of the American Statistical Association, for the short course 'Foundations and recent advances in longitudinal and incomplete data,' taught by G. Verbeke and G. Molenberghs, at the Joint Statistical Meetings (American Statistical Association, Institute of Mathematical Statistics, International Biometrics Society, and the Statistical Society of Canada), Miami, U.S.A., July 30-31, 2011.
10. Promotor of the Honorary Doctorate of Hasselt University to Prof. Dr. A.A. Tsiatis of North Carolina State University, North Carolina, U.S.A., November 15, 2013, Hasselt, Belgium.
11. Elected member of the Belgian Royal Academy of Medicine (2016 - ...)
12. International Biometric Society Award for the best Biometrics paper in 2021 for the paper "Latent Ornstein-Uhlenbeck models for Bayesian analysis of multivariate longitudinal categorical responses", Tran T.D., Lesaffre E., Verbeke G., and Duyck J., Biometrics (2021), 77, 689-701. The award is presented at the International Biometric Conference 2022, Riga, Latvia, on July 12, 2022.
13. Honorary Life Membership from the International Biometric Society for "An outstanding contribution of service to the Society and the wider biometry community," awarded at the International Biometric Conference, Atlanta (USA), on December 13, 2024.

Other
Relevant
Information