

# Peter Charlton

## Publication List

### Journal Articles

#### *Preprints (currently under review)*

- i. K. P. Bhayankaram, J. Mant, J. Brimicombe, A. Dymond, K. Williams, and **Charlton, Peter H.** Telephone training to improve ECG quality in remote screening for atrial fibrillation. *medRxiv*, 2024.02.08.24302493, 2024. URL <https://doi.org/10.1101/2024.02.08.24302493>
- ii. **Charlton, Peter H.**, V. Marozas, E. Mejia-Mejia, P. Kyriacou, and J. Mant. Determinants of photoplethysmography signal quality at the wrist. *TechRxiv*, 2024. URL <https://doi.org/10.36227/techrxiv.172954491.17588920/v1>
- iii. **Charlton, Peter H.**, E. J. Arguello-Prada, J. Mant, and P. Kyriacou. The MSPTDfast photoplethysmography beat detection algorithm: Design, benchmarking, and open-source distribution. *medrxiv*, 2024.08.23.24312514, 2024. URL <https://doi.org/10.1101/2024.08.23.24312514>

#### *Articles in press*

- i. S. Zanelli, D. Agnoletti, J. Alastruey, J. Allen, E. Bianchini, V. Bikia, P. Boutouyrie, R. M. Bruno, R. Climie, D. Djamaledine, E. Gkaliagkousi, A. Giudici, K. Gopcevic, A. Grillo, A. Guala, B. Hametner, J. Joseph, P. Karimpour, V. Kodithuwakku, P. A. Kyriacou, A. Lazaridis, M. T. Lonnebakk, M. R. Martina, P. M. Mayer, C C Nabeel, P. Navickas, J. Nemcsik, S. Orter, C. Park, T. Pereira, G. Pucci, A. B. A. Rey, P. Salvi, A. C. G. Seabra, U. Seeland, T. van Sloten, B. Spronck, G. Stansby, I. Steens, T. Stieglitz, I. Tan, D. Veerasingam, S. Wassertheurer, T. Weber, B. E. Westerhof, and **Charlton, P H.** Developing technologies to assess vascular ageing: a roadmap from VascAgeNet. *Physiological Measurement*, TBC:TBC, 2024. URL <https://doi.org/10.1088/1361-6579/ad548e>

#### **2024**

1. K. Kario, B. Williams, N. Tomitani, R. J. McManus, A. E. Schutte, A. Avolio, D. Shimbo, J.-G. Wang, N. A. Khan, D. S. Picone, I. Tan, **Charlton, Peter H.**, M. Satoh, K. N. Mmopi, J. P. Lopez-Lopez, T. L. Bothe, E. Bianchini, B. Bhandari, J. Lopez-Rivera, F. J. Charchar, M. Tomaszewski, and G. Stergiou. Innovations in blood pressure measurement and reporting technology: International Society of Hypertension position paper endorsed by the World Hypertension League, European Society of Hypertension, Asian Pacific Society of Hypertension, and Latin American Society of Hypertension. *Journal of Hypertension*, 42(11):1874, Nov. 2024. URL <https://doi.org/10.1097/HJH.0000000000003827>
2. A. Sen, M. Aguirre, **Charlton, Peter H.**, L. Navarro, S. Avril, and J. Alastruey. Machine learning-based pulse wave analysis for classification of circle of willis topology: an in silico study with 30,618 virtual subjects. *Biomedical Signal Processing and Control*, 100:106999, 2024. URL <https://doi.org/10.1016/j.bspc.2024.106999>
3. M. Rinkevicius, J. Lazaro, E. Gil, P. Laguna, **Charlton, Peter H.**, R. Bailon, and V. Marozas. Obstructive sleep apnea characterization: A multimodal cross-recurrence-based approach for investigating atrial fibrillation. *IEEE Journal of Biomedical and Health Informatics*, 28(10):6155–6167, 2024. URL <https://doi.org/10.1109/JBHI.2024.3428845>

4. F. Kristof, M. Kapsecker, L. Nissen, J. Brimicombe, M. Cowie, Z. Ding, A. Dymond, S. Jonas, H. C. Linden, G. Lip, K. Williams, J. Mant, and **Charlton, Peter H.** QRS detection in single-lead, tele-health electrocardiogram signals: benchmarking open-source algorithms. *PLOS Digital Health*, 3(8): e0000538, 2024. URL <https://doi.org/10.1371/journal.pdig.0000538>
5. K. Hibbitt, J. Brimicombe, M. Cowie, A. Dymond, B. Freedman, S. J. Griffin, F. R. Hobbs, H. C. Linden, G. Lip, J. Mant, R. J. McManus, M. Pandiaraja, K. Williams, and **Charlton, Peter H.** Reliability of single-lead electrocardiogram interpretation to detect atrial fibrillation: insights from the SAFER Feasibility Study. *EP Europace*, 26:euae181, 2024. URL <https://doi.org/10.1093/europace/euae181>
6. G. Yang, Y. Kang, **Charlton, PH**, P. Kyriacou, K. Kim, L. Li, and C. Park. Energy-efficient PPG-based respiratory rate estimation using spiking neural networks. *Sensors*, 24:3980, 2024. URL <https://doi.org/10.3390/s24123980>
7. J. Mant, R. N. Modi, **Charlton, Peter**, A. Dymond, E. Massou, J. Brimicombe, B. Freedman, S. J. Griffin, F. D. R. Hobbs, G. Y. H. Lip, R. J. McManus, and K. Williams. The feasibility of population screening for paroxysmal atrial fibrillation using hand-held electrocardiogram devices. *EP Europace*, 26:euae056, 2024. URL <https://doi.org/10.1093/europace/euae056>
8. M. A. Goda, **Charlton, Peter H.**, and J. A. Behar. pyPPG: A python toolbox for comprehensive photoplethysmography signal analysis. *Physiological Measurement*, 45:045001, 2024. URL <https://doi.org/10.1088/1361-6579/ad33a2>
9. A. Mathieu, M. Pascual, **Charlton, PH**, M. Volovaya, J. Venton, P. Aston, M. Nandi, and J. Alastruey. Advanced waveform analysis of the photoplethysmogram signal using complementary signal processing techniques for extraction of biomarkers of cardiovascular function. *JRSM Cardiovascular Disease*, 13:1–12, 2024. URL <https://doi.org/10.1177/20480040231225384>
10. C. Pettit, **Peter H Charlton**, and P. Aston. Photoplethysmogram beat detection using symmetric projection attractor reconstruction. *Frontiers in Physiology*, 15:1228439, 2024. URL <https://doi.org/10.3389/fphys.2024.1228439>
11. E. Bianchini, R. E. Climie, C. C. Mayer, M. R. Martina, M. Nandi, A. Schmidt-Trucksass, P. Segers, C. Park, G. Pucci, D. Terentes-Printzios, and **Peter H. Charlton**. Unified language for knowledge dissemination: the vascular ageing glossary, an initiative by VascAgeNet. *Artery Research*, 2024. URL <https://doi.org/10.1007/s44200-023-00041-5>

## 2023

12. J. Hong, M. Nandi, **Charlton, Peter H.**, and J. Alastruey. Non-invasive haemodynamic indices of vascular ageing: An in silico assessment. *American Journal of Physiology-Heart and Circulatory Physiology*, 325:H1290–H1303, 2023. URL <https://doi.org/10.1152/ajpheart.00454.2023>
13. S. Zanelli, K. Eveilleau, **Charlton, PH**, M. Ammi, M. Hallab, and M. EL Yacoubi. Clustered photoplethysmogram pulse wave shapes and their associations with clinical data. *Frontiers in Physiology*, 14:1176753, 2023. URL <https://doi.org/10.3389/fphys.2023.1176753>
14. **Charlton, Peter H.**, J. Allen, R. Bailon, S. Baker, J. A. Behar, F. Chen, G. D. Clifford, D. A. Clifton, H. J. Davies, C. Ding, X. Ding, J. Dunn, M. Elgendi, M. Ferdoushi, D. Franklin, E. Gil, M. F. Hassan, J. Hernesniemi, X. Hu, N. Ji, Y. Khan, S. Kontaxis, I. Korhonen, P. A. Kyriacou, P. Laguna, J. Lazaro, C. Lee, J. Levy, Y. Li, C. Liu, J. Liu, L. Lu, D. P. Mandic, V. Marozas, E. Mejia-Mejia, R. Mukkamala, M. Nitzan, T. Pereira, C. C. Y. Poon, J. C. Ramella-Roman, H. Saarinen, M. M. H. Shandhi, H. Shin, G. Stansby, T. Tamura, A. Vehkaoja, W. K. Wang, Y.-T. Zhang, N. Zhao, D. Zheng, and T. Zhu. The 2023 wearable photoplethysmography roadmap. *Physiological Measurement*, 44:111001, 2023. URL <http://iopscience.iop.org/article/10.1088/1361-6579/acead2>

15. R. E. Climie, J. Alastruey, C. C. Mayer, A. Schwarz, A. Laucyte-Cibulskiene, J. Voicehovska, E. Bianchini, R.-M. Bruno, **Charlton, Peter H.**, A. Grillo, A. Guala, M. Hallab, B. Hametner, P. Jankowski, K. Konigstein, A. Lebedeva, I. Mozos, G. Pucci, H. Puzantian, D. Terentes-Printzios, G. Yetik-Anacak, C. Park, P. M. Nilsson, T. Weber, and on behalf of the VascAgeNet Education and Dissemination Working Group. Vascular ageing: moving from bench towards bedside. *European Journal of Preventive Cardiology*, 11:1101–1117, 2023. URL <https://doi.org/10.1093/eurjpc/zwad028>
16. R. Al-Halawani, **Charlton, Peter H.**, M. Qassem, and P. A. Kyriacou. A review of the effect of skin pigmentation on pulse oximeter accuracy. *Physiological Measurement*, 44:05TR01, 2023. URL <https://doi.org/10.1088/1361-6579/acd51a>
17. M. Rinkevicius, **Charlton, Peter H.**, R. Bailon, and V. Marozas. Influence of photoplethysmogram signal quality on pulse arrival time during polysomnography. *Sensors*, 23(4):2220, 2023. URL <https://doi.org/10.3390/s23042220>
18. T. Hygrell, F. Viberg, E. Dahlberg, **Charlton, Peter H.**, K. Kemp Gudmundsdottir, J. Mant, J. L. Harnlund, and E. Svennberg. An artificial intelligence-based model for prediction of atrial fibrillation from single-lead sinus rhythm electrocardiograms facilitating screening. *EP Europace*, 25(4):1332–1338, 2023. URL <https://doi.org/10.1093/europace/euad036>
19. J. Alastruey, **Charlton, Peter H.**, V. Bikia, B. Paliakaite, B. Hametner, R. M. Bruno, M. P. Mulder, S. Vennin, S. Piskin, A. W. Khir, A. Guala, C. C. Mayer, J. Mynard, A. D. Hughes, P. Segers, and B. E. Westerhof. Arterial pulse wave modeling and analysis for vascular age studies: a review from VascAgeNet. *American Journal of Physiology-Heart and Circulatory Physiology*, 325:H1–H29, 2023. URL <https://doi.org/10.1152/ajpheart.00705.2022>
20. K. Kotzen, **Charlton, Peter H.**, S. Salabi, L. Amar, A. Landesberg, and J. A. Behar. SleepPPG-Net: A deep learning algorithm for robust sleep staging from continuous photoplethysmography. *IEEE Journal of Biomedical and Health Informatics*, 27(2):924–932, 2023. URL <https://doi.org/10.1109/JBHI.2022.3225363>

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21. **Charlton, Peter H.**, K. Kotzen, E. Mejia-Mejia, P. J. Aston, K. Budidha, J. Mant, C. Pettit, J. A. Behar, and P. A. Kyriacou. Detecting beats in the photoplethysmogram: benchmarking open-source algorithms. *Physiological Measurement*, 43(8):085007, 2022. URL <https://doi.org/10.1088/1361-6579/ac826d>
22. S. Vennin, Y. Li, J. Mariscal-Harana, **Charlton, Peter H.**, H. Fok, H. Gu, P. Chowienczyk, and J. Alastruey. Novel pressure wave separation analysis for cardiovascular function assessment highlights major role of aortic root. *IEEE Transactions on Biomedical Engineering*, 69(5):1707–1716, 2022. URL <https://doi.org/10.1109/TBME.2021.3127799>
23. P. H. Charlton, K. Pilt, and P. A. Kyriacou. Establishing best practices in photoplethysmography signal acquisition and processing. *Physiological Measurement*, 43(5):050301, 2022. URL <https://doi.org/10.1088/1361-6579/ac6cc4>
24. P. A. Kyriacou, **Charlton, Peter H.**, R. Al-halawani, and K. H. Shelley. Inaccuracy of pulse oximetry with dark skin pigmentation: clinical implications and need for improvement. *British Journal of Anaesthesia*, 130(1):E33–E36, 2023. URL <https://doi.org/10.1016/j.bja.2022.03.011>
25. **Charlton, Peter H.**, P. A. Kyriacou, J. Mant, V. Marozas, P. Chowienczyk, and J. Alastruey. Wearable photoplethysmography for cardiovascular monitoring. *Proceedings of the IEEE*, 110(3):355–381, 2022. URL <https://doi.org/10.1109/JPROC.2022.3149785>
26. **Charlton, Peter H.**, B. Paliakaite, K. Pilt, M. Bachler, S. Zanelli, D. Kulin, J. Allen, M. Hallab, E. Bianchini, C. C. Mayer, D. Terentes-Printzios, V. Dittrich, B. Hametner, D. Veerasingham, D. Žikić, and V. Marozas. Assessing hemodynamics from the photoplethysmogram to gain insights into vascular

age: a review from VascAgeNet. *American Journal of Physiology-Heart and Circulatory Physiology*, 322(4):H493–H522, 2022. URL <https://doi.org/10.1152/ajpheart.00392.2021>

## 2021

27. Y. Li, A. Guilcher, **Charlton, Peter H.**, S. Vennin, J. Alastruey, and P. Chowienczyk. Relationship between fiducial points on the peripheral and central blood pressure waveforms: rate of rise of the central waveform is a determinant of peripheral systolic blood pressure. *American Journal of Physiology - Heart and Circulatory Physiology*, 320(4):H1601–H1608, 2021. URL <https://doi.org/10.1152/ajpheart.00818.2020>
28. V. Bikia, T. Fong, R. E. Climie, R.-M. Bruno, B. Hametner, C. Mayer, D. Terentes-Printzios, and **Charlton, Peter H.** Leveraging the potential of machine learning for assessing vascular ageing: state-of-the-art and future research. *European Heart Journal - Digital Health*, 2(4):676–690, 2021. URL <https://doi.org/10.1093/ehjdh/ztab089>
29. A. Adami, R. Boostani, F. Marzbanrad, and **Charlton, Peter H.** A new framework to estimate breathing rate from electrocardiogram, photoplethysmogram, and blood pressure signals. *IEEE Access*, 9:45832–45844, 2021. URL <https://doi.org/10.1109/ACCESS.2021.3066166>
30. **Charlton, Peter H.**, T. Bonnici, L. Tarassenko, D. A. Clifton, R. Beale, P. J. Watkinson, and J. Alastruey. An impedance pneumography signal quality index: Design, assessment and application to respiratory rate monitoring. *Biomedical Signal Processing and Control*, 65:102339, 2021. URL <https://doi.org/10.1016/j.bspc.2020.102339>
31. J. Mariscal-Harana, **Charlton, Peter H.**, S. Vennin, J. Aramburu, M. C. Florkow, A. van Engelen, T. Schneider, H. de Blied, B. Ruijsink, I. Valverde, P. Beerbaum, H. Grotenhuis, M. Charakida, P. Chowienczyk, S. J. Sherwin, and J. Alastruey. Estimating central blood pressure from aortic flow: development and assessment of algorithms. *American Journal of Physiology - Heart and Circulatory Physiology*, 320(2):H494–H510, 2021. URL <https://doi.org/10.1152/AJPHEART.00241.2020>

## 2020

32. P. Celka, **Charlton, Peter H.**, B. Farukh, P. Chowienczyk, and J. Alastruey. Influence of mental stress on the pulse wave features of photoplethysmograms. *Healthcare Technology Letters*, 7(1):7–12, 2020. URL <https://doi.org/10.1049/htl.2019.0001>

## 2019

33. D. Jarchi, **Charlton, Peter**, M. Pimentel, A. Casson, L. Tarassenko, and D. A. Clifton. Estimation of respiratory rate from motion contaminated photoplethysmography signals incorporating accelerometry. *Healthcare Technology Letters*, 6(1):19–26, 2019. URL <https://doi.org/10.1049/htl.2018.5019>
34. **Charlton, Peter H.**, J. Mariscal Harana, S. Vennin, Y. Li, P. Chowienczyk, and J. Alastruey. Modeling arterial pulse waves in healthy aging: a database for in silico evaluation of hemodynamics and pulse wave indexes. *American Journal of Physiology-Heart and Circulatory Physiology*, 317(5):H1062–H1085, 2019. URL <https://doi.org/10.1152/ajpheart.00218.2019>

## 2018

35. **Charlton, Peter H.**, P. Celka, B. Farukh, P. Chowienczyk, and J. Alastruey. Assessing mental stress from the photoplethysmogram: a numerical study. *Physiological Measurement*, 39(5):054001, 2018. URL <https://doi.org/10.1088/1361-6579/aabe6a>

36. **Charlton, Peter H.**, M. Willemet, P. Chowienczyk, and J. Alastruey. Comment on ‘Numerical assessment and comparison of pulse wave velocity methods aiming at measuring aortic stiffness’. *Physiological Measurement*, 39(7):078001, 2018. URL <https://doi.org/10.1088/1361-6579/aaca80>
37. **Charlton, Peter H.**, D. A. Birrenkott, T. Bonnici, M. A. F. Pimentel, A. E. W. Johnson, J. Alastruey, L. Tarassenko, P. J. Watkinson, R. Beale, and D. A. Clifton. Breathing rate estimation from the electrocardiogram and photoplethysmogram: a review. *IEEE Reviews in Biomedical Engineering*, 11:2–20, 2018. URL <https://doi.org/10.1109/RBME.2017.2763681>

## 2017

38. S. Vennin, Y. Li, M. Willemet, H. Fok, H. Gu, **Charlton, Peter**, J. Alastruey, and P. Chowienczyk. Identifying hemodynamic determinants of pulse pressure: a combined numerical and physiological approach. *Hypertension*, 70(6):1176–1182, 2017. URL <https://doi.org/10.1161/HYPERTENSIONAHA.117.09706>
39. M. A. F. Pimentel, A. E. W. Johnson, **Charlton, Peter H.**, D. Birrenkott, P. J. Watkinson, L. Tarassenko, and D. A. Clifton. Toward a robust estimation of respiratory rate from pulse oximeters. *IEEE Transactions on Biomedical Engineering*, 64(8):1914–1923, 2017. URL <https://doi.org/10.1109/TBME.2016.2613124>
40. **Charlton, Peter H.**, T. Bonnici, L. Tarassenko, J. Alastruey, D. A. Clifton, R. Beale, and P. J. Watkinson. Extraction of respiratory signals from the electrocardiogram and photoplethysmogram: technical and physiological determinants. *Physiological Measurement*, 38(5):669–690, 2017. URL <https://doi.org/10.1088/1361-6579/aa670e>

## 2016

41. J. Aboab, L. A. Celi, **Charlton, Peter**, M. Feng, M. Ghassemi, D. C. Marshall, L. Mayaud, T. Naumann, N. McCague, K. E. Paik, T. J. Pollard, M. Resche-Rigon, J. D. Saliccioli, and D. J. Stone. A datathon model to support cross-disciplinary collaboration. *Science Translational Medicine*, 8(333):333ps8–333ps8, 2016. URL <https://doi.org/10.1126/scitranslmed.aad9072>
42. **Charlton, Peter H.**, T. Bonnici, L. Tarassenko, D. A. Clifton, R. Beale, and P. J. Watkinson. An assessment of algorithms to estimate respiratory rate from the electrocardiogram and photoplethysmogram. *Physiological Measurement*, 37(4):610–26, 2016. URL <https://doi.org/10.1088/0967-3334/37/4/610>

## 2015

43. C. Orphanidou, T. Bonnici, **Charlton, Peter**, D. Clifton, D. Vallance, and L. Tarassenko. Signal-quality indices for the electrocardiogram and photoplethysmogram: derivation and applications to wireless monitoring. *IEEE Journal of Biomedical and Health Informatics*, 19(3):832–8, 2015. URL <https://doi.org/10.1109/JBHI.2014.2338351>

## 2012

44. D. J. Meredith, D. Clifton, **Charlton, P.**, J. Brooks, C. W. Pugh, and L. Tarassenko. Photoplethysmographic derivation of respiratory rate: a review of relevant physiology. *Journal of Medical Engineering and Technology*, 36(1):1–7, 2012. URL <https://doi.org/10.3109/03091902.2011.638965>
45. R. Charlton and **Charlton, Peter**. A medical classic: Liza of Lambeth. *Clinical Medicine*, 12(4):393–4, 2012. URL <https://doi.org/10.7861/clinmedicine.12-4-393>

## Book Chapters

### 2022

46. E. Mejía-Mejía, J. Allen, K. Budidha, C. El-Hajj, P. A. Kyriacou, and **Charlton, Peter H.** Photoplethysmography signal processing and synthesis. In P. Kyriacou and J. Allen, editors, *Photoplethysmography*, chapter 4, pages 69–146. Elsevier, 1st editio edition, 2022. URL <https://doi.org/10.1016/B978-0-12-823374-0.00015-3>
47. **Charlton, Peter H.** and V. Marozas. Wearable photoplethysmography devices. In P. Kyriacou and J. Allen, editors, *Photoplethysmography*, chapter 12, pages 401–439. Elsevier, 1st editio edition, 2022. URL <https://doi.org/10.1016/B978-0-12-823374-0.00011-6>

### 2016

48. **Charlton, Peter H.**, M. Villarroel, and F. Salguiero. Waveform analysis to estimate respiratory rate. In *Secondary Analysis of Electronic Health Records*, chapter 26, pages 377–390. Springer International Publishing, 2016. URL [https://doi.org/10.1007/978-3-319-43742-2\\_26](https://doi.org/10.1007/978-3-319-43742-2_26)
49. **Charlton, Peter H.**, M. Pimentel, and S. Lokhandwala. Data fusion techniques for early warning of clinical deterioration. In *Secondary Analysis of Electronic Health Records*, pages 325–338. Springer International Publishing, 2016. URL [https://doi.org/10.1007/978-3-319-43742-2\\_22](https://doi.org/10.1007/978-3-319-43742-2_22)

### 2015

50. D. A. Clifton, K. E. Niehaus, **Charlton, P.** and G. W. Colopy. Health Informatics via Machine Learning for the Clinical Management of Patients. In *IMIA Yearbook of Medical Informatics*, volume 24, pages 38–43. Georg Thieme Verlag KG, 2015. URL <https://doi.org/10.15265/IY-2015-014>
51. M. A. F. Pimentel, **Charlton, Peter H.** and D. A. Clifton. Probabilistic estimation of respiratory rate from wearable sensors. In S. C. Mukhopadhyay, editor, *Wearable Electronics Sensors*, volume 15, pages 241–62. Springer International Publishing, 2015. URL [https://doi.org/10.1007/978-3-319-18191-2\\_10](https://doi.org/10.1007/978-3-319-18191-2_10)

## Conference Papers

### 2024

52. **Charlton, PH.** J. Mant, and P. Kyriacou. MSPTDfast: an efficient photoplethysmography beat detection algorithm. In *Proc CinC.*, Karlsruhe, Germany, 2024. URL [https://cinc.org/2024/Program/accepted/45\\_Preprint.pdf](https://cinc.org/2024/Program/accepted/45_Preprint.pdf)
53. **Charlton, PH.** T. Bonnici, J. Brimicombe, C. Chapman, A. Dymond, M. Van Emmenis, P. Kyriacou, V. Marozas, A. Rapalis, K. Williams, J. Mant, and J. Mant. The acceptability of wearables for atrial fibrillation screening: Interim analysis of the safer wearables study. In *Proc CinC.*, Karlsruhe, Germany, 2024. URL [https://cinc.org/2024/Program/accepted/60\\_Preprint.pdf](https://cinc.org/2024/Program/accepted/60_Preprint.pdf)
54. Z. Ding, J. Mant, J. Brimicombe, T. Bucci, B. Buckley, P. Calvert, W. Ding, A. Dymond, G. Lip, R. Proietti, K. Williams, E. Punsakaya, and **Charlton, PH.** Comparing RR-interval-based and whole-signal-based machine learning models for atrial fibrillation detection from single-lead electrocardiograms. In *Proc CinC.*, Karlsruhe, Germany, 2024. URL [https://cinc.org/2024/Program/accepted/59\\_Preprint.pdf](https://cinc.org/2024/Program/accepted/59_Preprint.pdf)
55. S. Ho, F. Kristof, J. Mant, and **Charlton, PH.** Automated RR interval detection and quality assessment in telehealth electrocardiograms. In *Proc CinC.*, Karlsruhe, Germany, 2024. URL [https://cinc.org/2024/Program/accepted/84\\_Preprint.pdf](https://cinc.org/2024/Program/accepted/84_Preprint.pdf)

56. M. Rinkevicius, **Charlton, PH**, and V. Marozas. Uncertainty in photoplethysmography-based cuffless blood pressure trend monitoring: A personalized approach. In *Proc CinC.*, Karlsruhe, Germany, 2024. URL [https://cinc.org/2024/Program/accepted/98\\_Preprint.pdf](https://cinc.org/2024/Program/accepted/98_Preprint.pdf)

## 2023

57. **Charlton, PH** and P. Kyriacou. Wearable photoplethysmography: Current status and future challenges. In *Proc CinC.*, Atlanta, USA, 2023. URL <https://doi.org/10.22489/CinC.2023.076>
58. **Charlton, PH**, J. Behar, M. Goda, J. Mant, and P. Kyriacou. Accelerometry-guided inter-beat-interval assessment from wrist photoplethysmography. In *Proc CinC.*, Atlanta, USA, 2023. URL <https://doi.org/10.22489/CinC.2023.046>
59. J. Behar, J. Levy, S. Gendelman, A. Rosenberg, E. Zvuloni, A. Alexandrovich, **Charlton, PH**, and G. MA. Physiozoo: The open physiological biomarkers resource. In *Proc CinC.*, Atlanta, USA, 2023. URL <https://doi.org/10.22489/CinC.2023.190>
60. M. A. Goda, **Charlton, Peter H.**, and J. A. Behar. Robust peak detection for photoplethysmography signal analysis. In *Proc CinC.*, 2023. URL <https://doi.org/10.22489/CinC.2023.189>
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