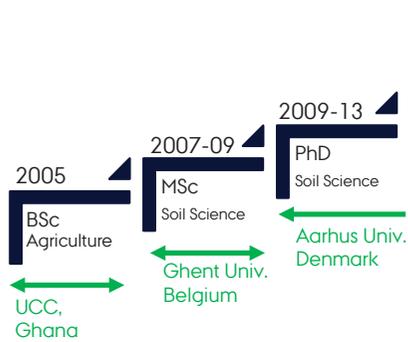


CAREER



Research
Soil structure development over time
Resilience of soil structure to stresses
(mechanical, and chemical)

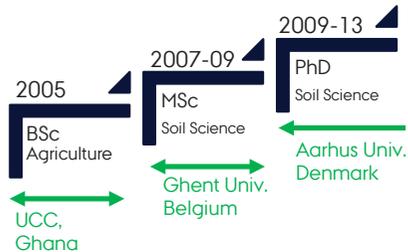


CAREER TRACK AND RESEARCH

EMMANUEL ARTHUR

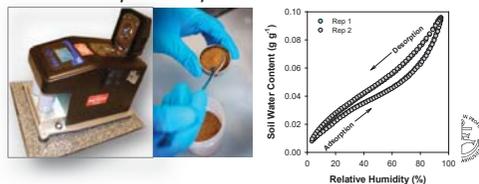


CAREER

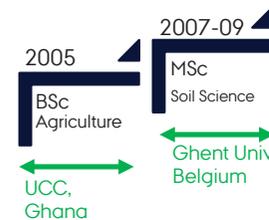


Research
Soil structure development over time
Resilience of soil structure to stresses
(mechanical, and chemical)

Visit abroad (2012):
The Univ. of Arizona, Markus Tuller
Soil water vapor sorption



CAREER

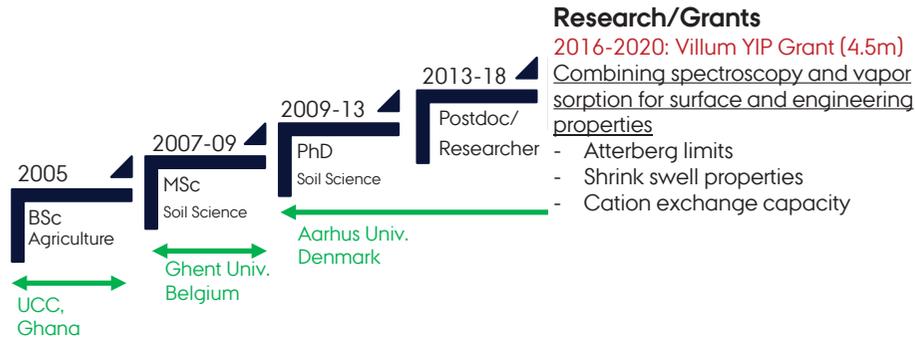


Research
Decade-long compost application ~ sandy soil

- Wind and water erosion susceptibility
- Aggregate stability
- Porosity and structural quality
- Tomato growth



CAREER



RESEARCH OUTPUT - PHD

Soil Architecture and Biophysical Functions: Interrelated effects of texture, organic matter, and response to anthropogenic stresses

- Soil structure regeneration – 22 months
[Arthur et al. \(2014\) EJSS 65 \(2\), 218-230](#); [Arthur et al. \(2013\) SSSAJ 77 \(6\), 165-1976](#).
- Soil resilience (structure, microbial activity) – SOM and density, heavy metal contamination
[Arthur et al. \(2012\) AGEE 159, 9-18](#); [Arthur et al. \(2012\) Geoderma 173-174, 50-69](#)
[Arthur et al. \(2013\). Geoderma 193-194, 236-245](#)
- Soil gas transport modeling (air permeability and gas diffusion)
[Chamindu Deepagoda et al. \(2013\) SSSAJ 77, 362-371](#); [Arthur et al. \(2012\) SSSAJ 76: 18-27](#).



CAREER

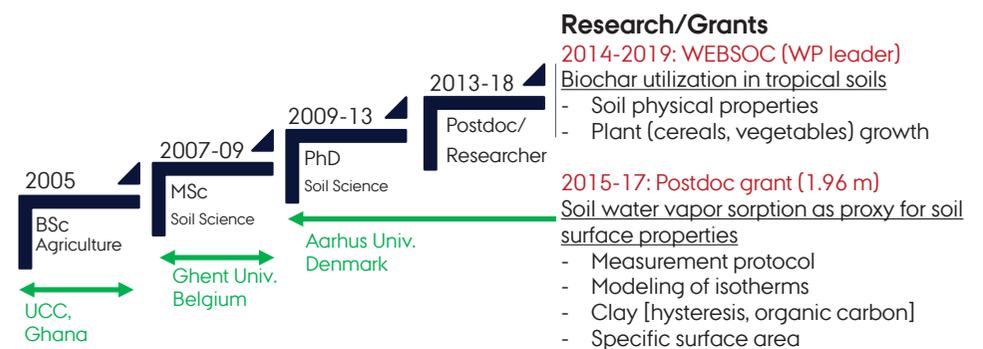
Research/Grants

2019-2023: DFF Project 1 (2.8m)
Biophysical drivers of soil resilience in a changing climate

- Integrating soil microbiome and physicochemical properties
- Across four fields in three climatic zones
Rothamsted Research, UK
LTRAS Univ. California-Davis, US
Greenland
Askov, DK



CAREER

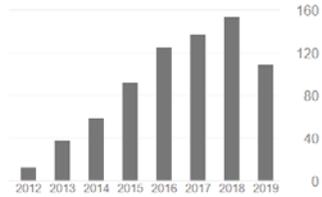


RESEARCH STATS

- 51 published peer-reviewed articles
- 34 conference abstracts/proceedings
- 1 Book Chapter

Cited by

| | All | Since 2014 |
|-----------|-----|------------|
| Citations | 722 | 672 |
| h-index | 16 | 16 |
| i10-index | 26 | 26 |



RESEARCH OUTPUT

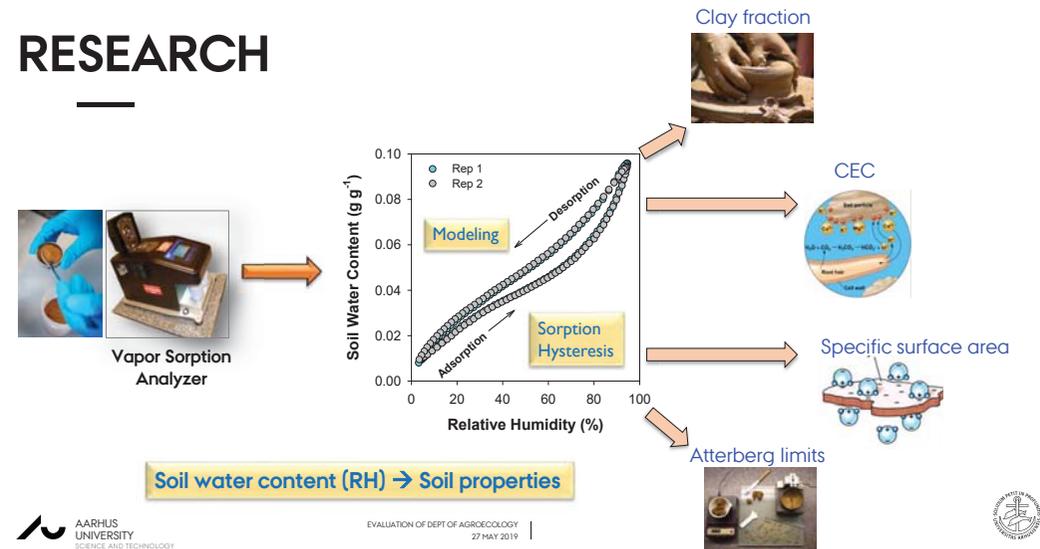


AWARDS

- 2017 Soil Physics and Hydrology Division Early Career Award (Soil Science Society of America)
- 2016 Vadose Zone Journal Outstanding Reviewer Award
- 2009 DeBoodt-Maselis award – Best graduating PLR MSc student Ghent University



RESEARCH



INTERNATIONAL EXPERIENCE

2017-2018

The University of Arizona, SWES – 7 months

Prof. Markus Tuller

SWIR modeling for estimating soil hydraulic functions

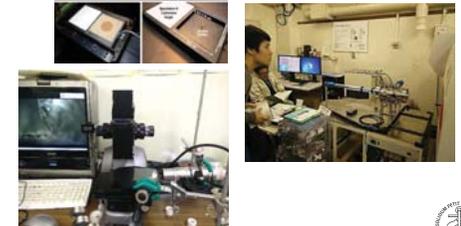


Saitama University, Japan – 2 months

Prof. Ken Kawamoto

Water repellency across geographical regions

Fourier-transform infrared spectroscopy, XPS



INT'L COLLABORATION

The University of Arizona, US

Saitama University, JP

China Agricultural Univ, CN

Wuhan University, CN

Shiraz University, IR

Shakrekord Univ, IR

Ghent University, BE

University of Ghana, GH

University of Cape Coast, GH

Rothamsted Research, UK