Preface

After years of diminishing investment and intellectual efforts, pedology is thriving again. The reasons hereto are several fold, but increased interest and appreciation in soils as well as a range of new instruments and techniques brightened soil research across the globe. Although soils can be studied without digging a pit or taking a soil core, the soil profile is at the heart of many soil studies. Rightfully so, much of our understanding has come from careful and precise measurement and observations along a soil profile wall. However, the observational and interpretative techniques have not changed much in the past decades despite the technical revolution that is taken place in many soil science subdisciplines. We have proposed the use of *digital soil morphometrics* to expand and compliment the pedologists's fieldkit to observe soil profiles. Digital soil morphometrics is defined as the application of instruments and techniques for measuring, mapping, and quantifying soil profile properties and deriving depth functions of soil properties. The pedon is at the heart of digital soil morphometrics.

In 2014, the *International Union of Soil Sciences* (IUSS) recognized the need for a Working Group on Digital Soil Morphometrics. The *IUSS Inaugural Global Workshop on Digital Soil Morphometrics* was held in June 2015 in Madison, USA, and consisted of three days of presentations and discussions, preceded by a one-day fieldtrip. There were 70 participants from over 15 countries. This book contains selected papers from the *IUSS Inaugural Global Workshop on Digital Soil Morphometrics*. The conference presentations (and this book) were structured along four research topics: (i) soil profile properties, (ii) soil profile imaging, (iii) soil depth functions, and (iv) use and applications of digital soil morphometrics. We have selected 26 papers that focus on novel and exciting aspects of soil morphometrics and included a few review papers and summary chapter.

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Leah leighty of CALS Conference Services for their kind assistance. It is our hope that the ideas and results in this book will help to shape critical thinking about how we look at soil profiles for we need to move forward and deepen our understanding.

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