

Contents

Preface — V

Wolmer Vasconcelos, a tribute — IX

Vasconcelos Bibliography (1964–2024) — XVII

Joseph Brennan and Tiffany Nielander

The early years: flatness, projectivity, and R -sequences — 1

Aron Simis

Joint work with Wolmer Vasconcelos. The early years — 41

Jürgen Herzog, Appendix by Benjamin Briggs, and Srikanth B. Iyengar

Homological properties of the module of differentials — 71

Jooyoun Hong and Susan Morey

Hilbert coefficients and Sally modules: a survey of Vasconcelos' contributions — 97

Maria Vaz Pinto and Rafael H. Villarreal

Graph rings and ideals: Wolmer Vasconcelos' contributions — 133

Laura Ghezzi and Jooyoun Hong

Degrees: Vasconcelos contributions — 203

Joseph Brennan

The books of Wolmer V. Vasconcelos — 241

Craig Huneke

Finding nilpotents with Wolmer Vasconcelos — 261

David Eisenbud and Bernd Ulrich

Rees algebras over residual intersections — 279

Tymoteusz Chmiel, Lorenzo Guerrieri, Xianglong Ni, and Jerzy Weyman

Structure theorems for Gorenstein ideals of codimension four with small number of generators — 297

Philippe Gimenez and Francesc Planas-Vilanova

Sifted degrees of the equations of the Rees module and their connection with the Artin–Rees numbers — 333

Martin Kreuzer and Lorenzo Robbiano

Reembeddings of special border basis schemes — 353

Margherita Barile and Winfried Bruns

$\mathbb{Z}^r$ -graded rings and their canonical modules — 389

Naoki Endo, Laura Ghezzi, Shiro Goto, Jooyoun Hong, Shin-ichiro Iai, Toshinori Kobayashi,
Naoyuki Matsuoka, and Ryo Takahashi

Rings with q -torsionfree canonical modules — 405