SBStrips

Version 0.6.0

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A discrete model of special biserial algebras, string modules and their syzygies

Abstract

We implement a discrete model of special biserial algebras and, more to the point, their string modules. We represent string modules using new objects that we call *strips*. Using these, we efficiently calculate syzygies of string modules in terms of the strips that represent them.

This package builds on, an interfaces with, the QPA package. This package was created as part of the author's PhD thesis.

Acknowledgements

I thank my PhD supervisor Professor Jeremy Rickard, on whom I inflicted multiple early iterations of SBStrips, for his time and his comments. This package was much worse before his feedback.

Contents

Chapter 1

Introduction

This is based on [LM04].

1.1 Heading

1.1.1 InfoSBStrips

▷ `InfoSBStrips` (info class)

Returns: nothing

The default value is 1. Set it to 2, 3 or 4 for increasing amounts of verbiosity. Set it to 0 to receive no commentary from SBStrips about the work it's doing.

References

[LM04] S. Liu and J.-P. Morin. The strong no loop conjecture for special biserial algebras. *Proceedings of the American Mathematical Society*, 132(12):3513–3523, 2004. 4

Index