

## CALCULATION OF THE CASSON-WALKER-LESCOP INVARIANT FROM CHORD DIAGRAMS

HITOSHI MURAKAMI

*Department of Mathematics, Osaka City University  
Sugimoto, Sumiyoshi-ku, Osaka 558, Japan*

*Department of Pure Mathematics, University of Liverpool  
PO Box 147, Liverpool L69 3BX, UK*

*Department of Mathematics, School of Science and Engineering, Waseda University  
Obikubo, Shinjuku, Tokyo 169, Japan  
E-mail: hitoshi@yuguiwa.co.jp*

In [5, 6] T. Q. T. Le, J. Murakami, T. Ohtsuki and the author gave an invariant of three-manifolds by using the Kontsevich integral. It turns out that it contains the order of the first homology and the Casson-Walker-Lescop invariant (C. Lescop's generalization [8] to closed 3-manifolds of the Casson-Walker invariant which is K. Walker's generalization [9] to rational homology 3-spheres of the Casson invariant [1] for integral homology 3-spheres).

Since the definition in [5, 6] uses complicated integrals, it is convenient for topologists (including the author himself) to give a combinatorial approach to our invariant. Unfortunately, the author cannot give a combinatorial proof of its existence but can explain how to calculate it without using integrals. If you can draw circles and dotted lines, you can calculate our invariant. (Of course the author assumes you can calculate fractions.)

There is nothing new in this article; no precise definitions or proofs. If the reader is interested in our invariant, please try our paper [6].

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The paper is in final form and no version of it will be published elsewhere.

# Global Surgery Formula For The Casson Walker Invariant

**J Elliott**



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