

## ON THE FUBINI PRODUCTS OF $C^*$ -ALGEBRAS

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In this thesis, we study various properties of the so called minimal tensor products of  $C^*$ -algebras. To deal with the minimal  $C^*$ -tensor products, the methods of slice maps and Fubini products have been proved to be very efficient. For example, the commutation and intersection theorems are closely related with the triviality of Fubini products. Therefore, it is very important to find necessary and sufficient conditions for the triviality of Fubini products, and the main theme of this thesis is to find such conditions and apply them to the minimal  $C^*$ -tensor products.

In Chapter 1, we review various fundamental results which are needed for our later chapters. In Chapter 2, we study the slice map conjecture and the problem of trivial Fubini products. We give some necessary and sufficient conditions for which Fubini products become trivial. In Chapter 3, we deal with the intersection problems for  $C^*$ -tensor products and introduce new conditions in connection with the slice map conjecture. Results in Chapters 2 and 3 are applied to provide sufficient conditions for the triviality of Fubini products. In Chapter 4, we give a few commutation results for the minimal  $C^*$ -tensor products, as applications of previous chapters. In appendix, we present ten questions closely related to the theme of this thesis.

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