Single top quark production at the LHC: Data processing and cross section measurement
Lee, H.C.

Citation for published version (APA):
Lee, H. C. (2013). Single top quark production at the LHC: Data processing and cross section measurement

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Finally, this is the book that I can proudly call “My Thesis”. Looking backward, this milestone had not been achieved without those colleagues, friends and my family who accompany me and help me one way or the other on this exceptional journey. I would like to thank them gratefully with the words below.

First of all, a big thank to my promoter, Stan Bentvelsen. When I started, I knew nothing about particle physics; but through his guidance, I managed to acquire necessary knowledge (in both theory and experiment) efficiently to conduct researches in physics. Concerning the research works, I am glad to be supervised by Marcel Vreeswijk and Jeff Templon. Their constructive advices always help me to successfully deal with tough situations in both work and daily life. “Do as much as you can and accept what you cannot control” is what I learned from them in the last period when I doubted that I could finish this thesis on time. I like to thank my external C3 member, Sijbrand de Jong, for making checkpoints in a regular basis to keep me on track.

This thesis would not be finished without the help from many colleagues. On the physics side, I would like to thank Duc Bao Ta, who coordinated all necessary studies and helped me on various technical issues in physics analysis. Without the contributions from Alexander Doxiadis, Daniël Geerts, Rogier van der Geer and Stefan Gadatsch, several studies would be difficult to complete. I also like to thank many other colleagues in the ATLAS group at Nikhef, especially Paul de Jong, Pamela Ferrari, Ivo van Vulpen, Wouter Verkerke and Olga Igonkina. With their enthusiasm for providing valuable comments/inputs to my research, I always get inspired after discussions with them at various occasions.

On the computing side, I am especially grateful to Kors Bos for involving me in several important tasks of the ATLAS computing operation. Through this service work, I acquired quickly an overview about how the data processing is managed on the grid. Thanks to Simone Campana, Stephane Jezequel, Ikuo Ueda, Johannes Elmsheuser and Cedric Serfon from the ATLAS central operation team, for their assistance in analyzing
the accounting data of the grid jobs. My grid computing expertise is built gradually through many fruitful collaborations with Jakub Moscicki in the context of several Ganga/Diane related projects. The techniques we shared together for “gridifying” scientific applications are valuable knowhow for the computing-related studies in this thesis. I also appreciate many informative communications with Ronald Starink, David Groep, Wim Heubers, Tristan Suerink, Ron Trompert, Lykle Voort and many other colleagues who operate the computing facilities (the Dutch Tier-1 center, stomboot cluster, BigGrid HPC cloud) at Nikhef and SARA. They do save me a lot of time for setting up studies on these systems.

The idea of pursuing a Ph.D. degree in Europe was initialized before I moved to Amsterdam. I should thank Simon C. Lin, Hsin-Yen Chen and Eric Yen, for supporting me on this idea when I was still employed by ASGC in Taiwan. Many thanks to Massimo Lamanna and Dietrich Liko for turning this idea into action by introducing me to the University of Innsbruck. During the period at the University of Innsbruck, I received lots of help from Dietmar Kuhn for arranging the necessary paper work to get financial support. I appreciate all these efforts to get me on this exceptional journey.

For those people who ever shared jokes and funny stories with me over drinks, I consider them as my sincere friends and thank them all for making the journey “gezellig”. Among these friends, my special thanks to Daniela Remenska and Rogier van der Geer for their kindness to be my paranimfs.

Last but certainly not least, I would like to thank my closest family and I will do it in Chinese.

感謝我的父母親，雖然身居台灣，卻藉由每週的視訊以及幾乎每月一次由台灣寄來的包裹，讓我遠在荷蘭，卻感受到他們對我在生活及工作上的無比關心。也感謝他們對自己的照理，讓我無需為他們的健康及生活擔心，專心於研究及論文的撰寫。我還要感謝我的妻子宮琬靖，一路上陪伴我在異鄉生活，獨力撫養兩個小孩並照顧我們一家人的生活。感謝我的兩個小孩，文森和文瀚，在辛苦工作之餘，他們帶給我生活上許多的歡笑、喜悅與驚奇。還有其它在台灣的親人朋友們，感謝你們在論文撰寫過程中一路的鼓勵與陪伴，以及在生活上的支持，讓我無後顧之憂，順利的完成此一論文。謝謝你們！

Hurng-Chun Lee (李宏春), September 2013, Amsterdam