New Horizontals in Software Engineering: Agile Software Product Line Engineering and Aspect Weaving Problems。

Software Product Line Methods (SPLMs) have been continuously gaining attention, for its strength in seamless integration of domain engineering with application development. However, SPLMs are still heavy weight in nature, for significant up-front commitments are involved in development of a flexible product platform, which will be modified into a range of products sharing common features. The purpose of Agile Software Product Line research is to integrate Agile practices into Software Product Line Approach, resulting in a lighter-weight approach that provides mass customization, reduced time-to-market, and improved customer satisfaction.

In Aspect-Oriented Programming (AOP), a crosscutting concern is extracted from a base program and is modularized into a new construct called aspect. The aspect is weaved back to the program to incorporate the crosscutting behaviours. Many semantic problems, referred to as Aspect Weaving Problems (AWPs), could be introduced in the aspect weaving process. The purpose of the AWP research is to develop a taxonomy of AWPs as well as a unified modelling approach with framework support for their modeling and detection, resulting into a well-formulated methodology that can be utilized by programmers of various kinds of AOP languages.

田堃博士，于2011年在德克萨斯大学达拉斯分校博士学位。研究兴趣为交叉学科的研究。田堃博士曾经在国外的七所和国内3所大学访问、读于或供职，也在工业界工作过多年，从2011年开始到现在是加拿大魁北克的CGI公司的顾问。田堃博士在国际期刊上发表多篇论文，是二个国际期刊的评委。目前在威斯康星大学任副教授，以前曾在明尼苏达大学任讲师，青岛大学、中央民族大学任客座教授。在国外还获得过一项教学成果奖。