

Chemical Engineering Seminars – HT 2009

Special Seminar

Week 3, Monday February 2nd 2009, 4:00PM-5:00PM

Lecture Room 1, Thom Building, Engineering Science

Followed by refreshments and beer sampling in the Holder Common Room, Holder Building, Engineering Science

Chemical engineering in the Pub

Jaime Jurado

The Gambrinus Company

Abstract

Much of the world's social history has been framed around the inn, pub, or as the Romans called them, the *tabernae*. We often take for granted that the beer in the glass came from a keg or cask, and that the requirements for gentle transport of the sensitive liquid are similar to what one would expect from many costlier materials: the product is shear-sensitive, highly sensitive to bacterial infection, and carbonation levels and target dispense temperature in the beer must be maintained. The customer demands the beer to be served in a tight temperature range, often with a nice head of foam. After a quick overview of the scope of draught beer sales in the hospitality industry, we will explore, as chemical engineers, design aspects of beer draught dispense systems, and look at cleaning and dispense parameters in a familiar framework. The presentation includes a simple kinetics-based model and closes with a brief look at analytical calculations related to carbonation and bubbles from a Stefan-Maxwell perspective.

Biography

Jaime Jurado has worked as a Master Brewer and Chemical Engineer in the brewing industry for over 25 years, including 12 years as Director of Brewing Operations for The Gambrinus Company. He served as Chair of the Editorial Board of the MBAA Technical Quarterly for four years, and was president of the MBAA (Master Brewers' Association of the Americas). Besides the MBAA, Jurado is a member of the Institute of Brewing & Distilling, the AIChE, and ACS, where he has served as a Program Chair. He's a former member of Magdalen MCR and claims his postgrad study was croquet on the quad.