



**Science Outreach –Athabasca  
presents...  
Modeling for real-world  
systems - Why do we  
develop models?**



**Speaker: Junye Wang,**  
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**Date: Wednesday, March 27, 2019**

**Time: 7:00 PM to 8:30 PM**

**Place: Athabasca University  
Governing Council Chambers**

Why does an apple fall to the ground? This is a well-known story that Newton was sitting under an apple tree, an apple fell on his head. Newton's law of universal gravitation is a general physical representative of real-world free fall processes which was derived from empirical observations. A model or simulation imitates a real-world process or system. The talk will explore the role of models and simulation in the real-world. Motivated by real world problems, the talk will present why we are developing a system model of the Athabasca River Basin to describe the river basin system and predict future events. What would be the impact of current agricultural and industrial production in Athabasca River Basin? Is there an optimal way to manage environmental impacts of agricultural and industrial changes? We will discuss the differences between the real world and the model world and how to balance the need for detail that approximates the reality of the process and system under study.

**Free community event! Refreshments & Door prizes!**

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