# Multi-Model Based Incident Prediction and Risk Assessment in Dynamic Cybersecurity Protection for Industrial Control Systems (ICSs)

**Zhang Qi**

zqmillet@hust.edu.cn

**October 6, 2015**


Automation School,
Huazhong University of Science and Technology,
Wuhan.

# Outlines

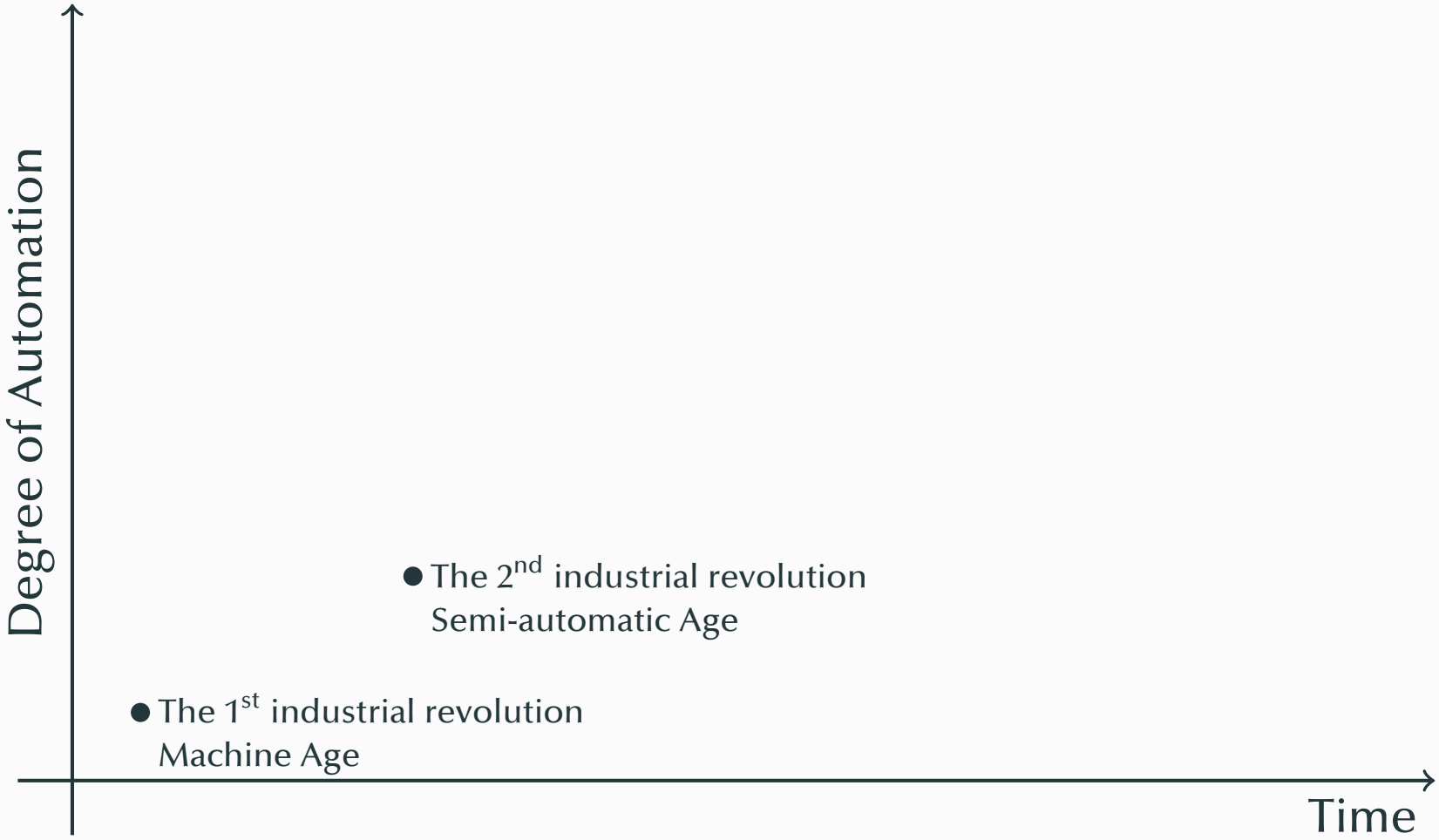
# Introduction

# Background

Driven by computer technology, communication technology and intellectual technology, ICSs develop towards the direction of intelligentization and network.

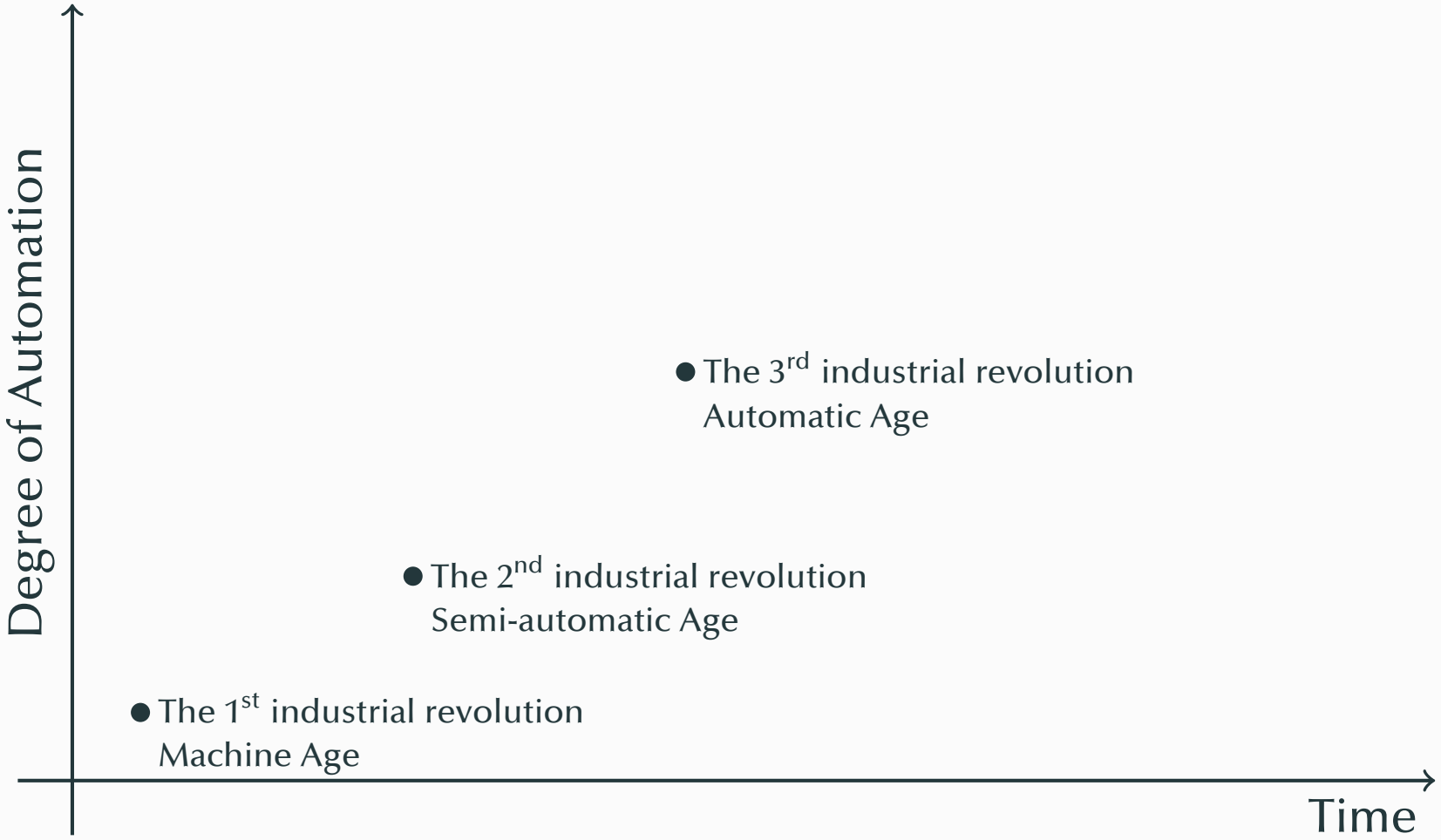
# Background

Driven by computer technology, communication technology and intellectual technology, ICSs develop towards the direction of intelligentization and network.



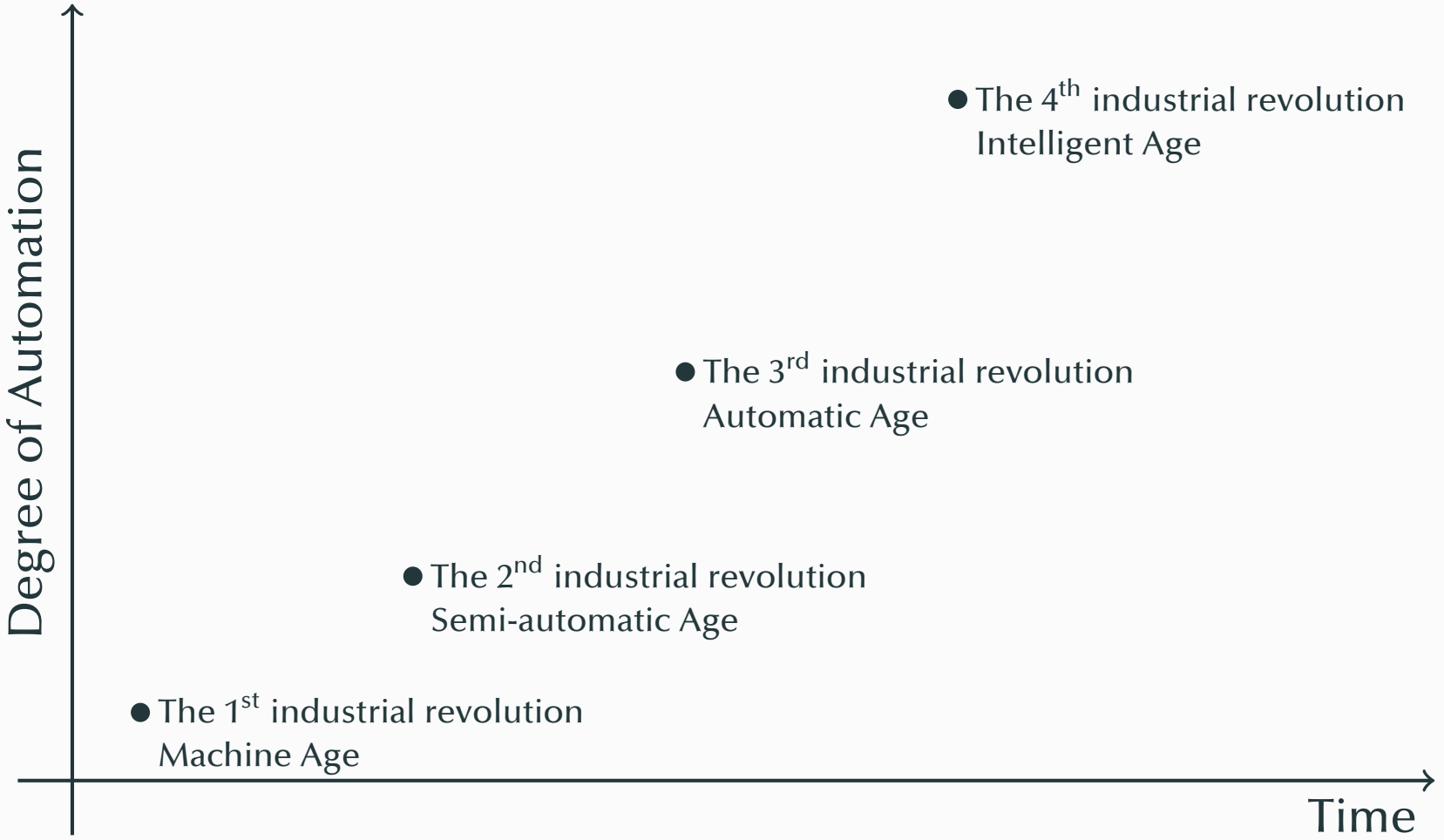
# Background

Driven by computer technology, communication technology and intellectual technology, ICSs develop towards the direction of intelligentization and network.



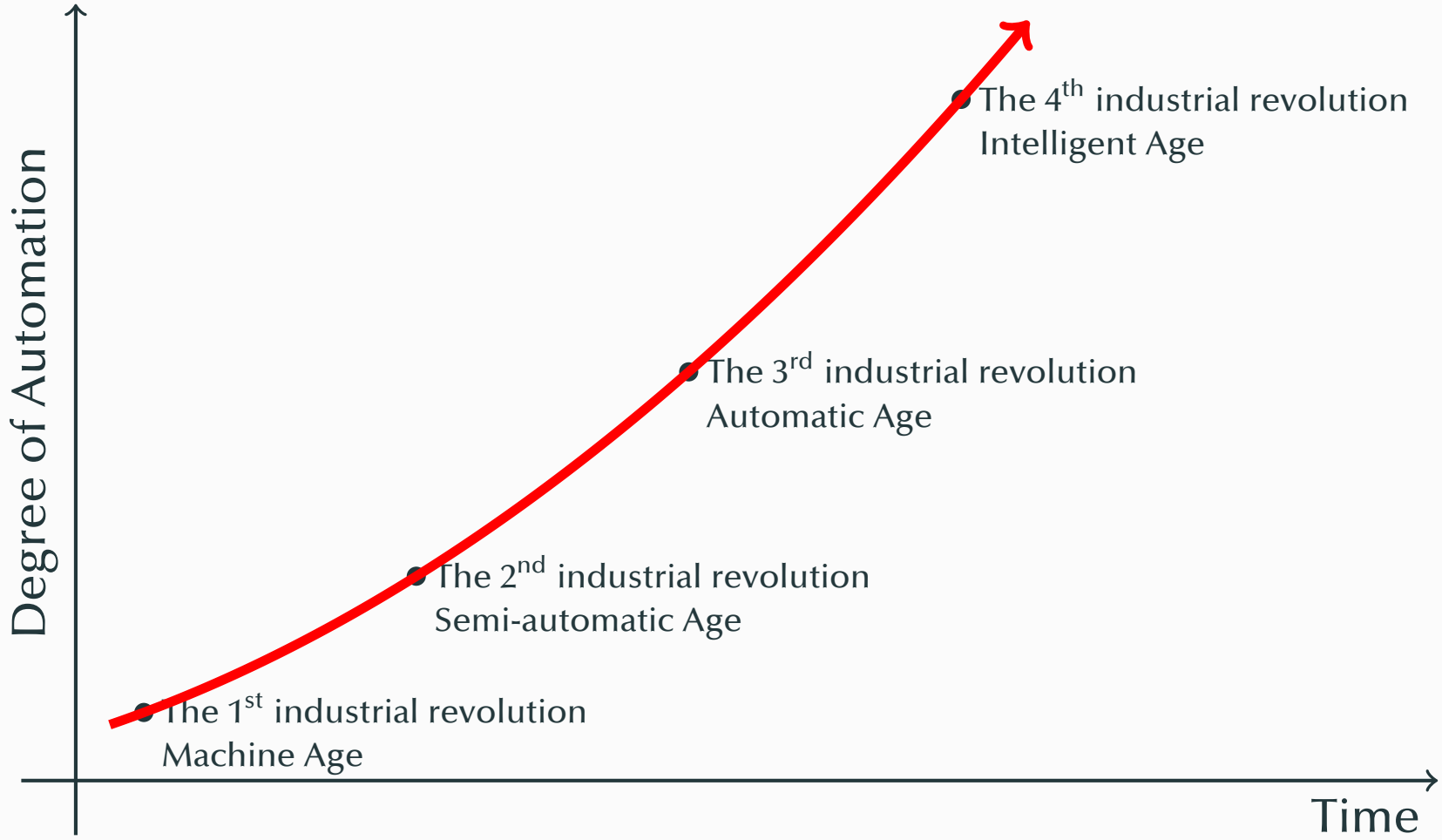
# Background

Driven by computer technology, communication technology and intellectual technology, ICSs develop towards the direction of intelligentization and network.



# Background

Driven by computer technology, communication technology and intellectual technology, ICSs develop towards the direction of intelligentization and network.



# Problems

# Architecture

# Hazardous Incident Prediction

# Attack Level

# Function Level

# Incident Level

# Collection of Evidence

# Calculation of Incident Probability

# Dynamic Risk Assessment

# Harm to Humans

# Environmental Pollution

# Property Loss

# Quantification of Harm to Humans

# Quantification of Environmental Pollution

# Quantification of Property Loss

# Calculation of Dynamic Risk

# Simulation

# Knowledge Modeling and Simulation Platform

# Simulation and Result Analysis

# Questions?