

# Effects of the body force on the evacuation dynamics

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## Abstract

*Keywords:*

Pedestrian Dynamics, Social Force Model, Body Force

*PACS:* 45.70.Vn, 89.65.Lm

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## 1. Introduction

## 2. Background

### 2.1. The Social Force Model

## 3. Numerical simulations

## 4. Results

### 4.1. Bottleneck

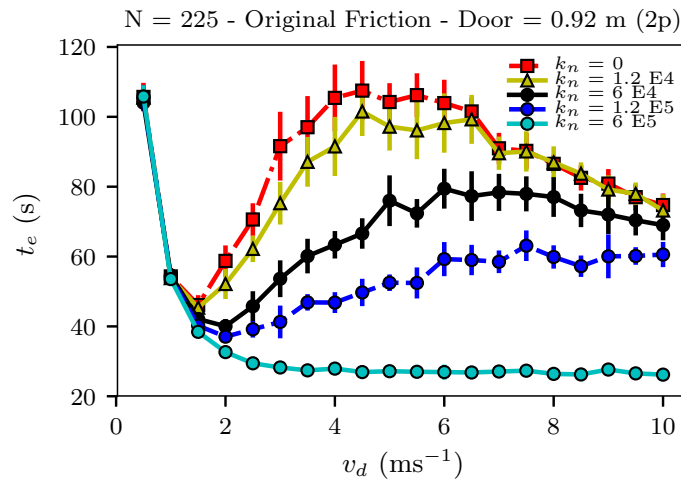
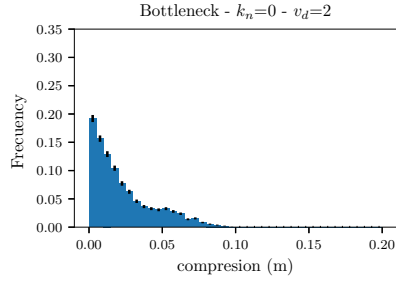
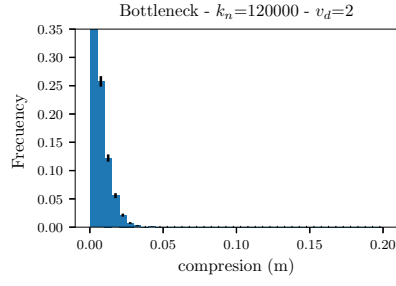


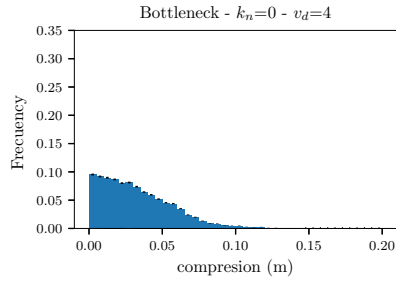
Figure 1:



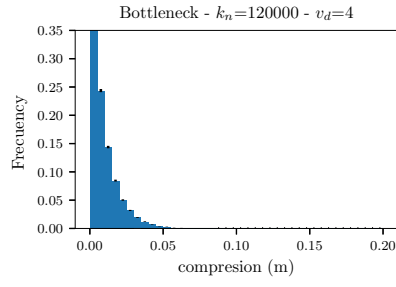
(a)



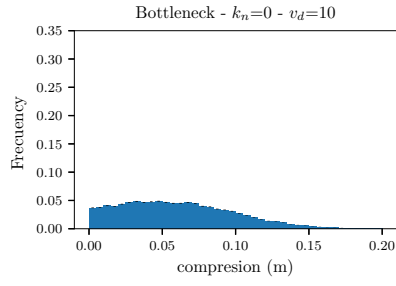
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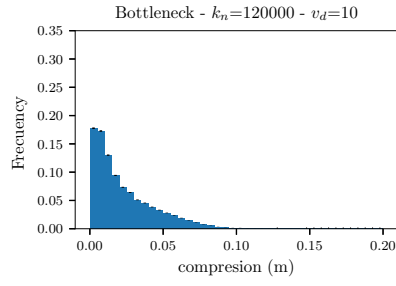
(c)



(d)



(e)



(f)

Figure 2:

#### 4.2. Corridor

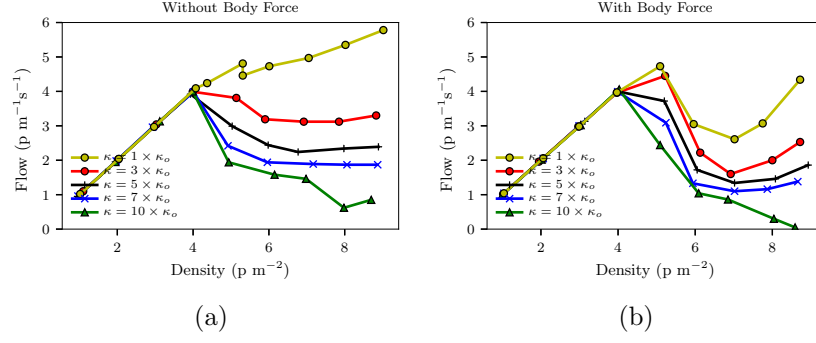


Figure 3:

#### 4.3. Reduced-in-units equation of motion

### 5. Conclusions

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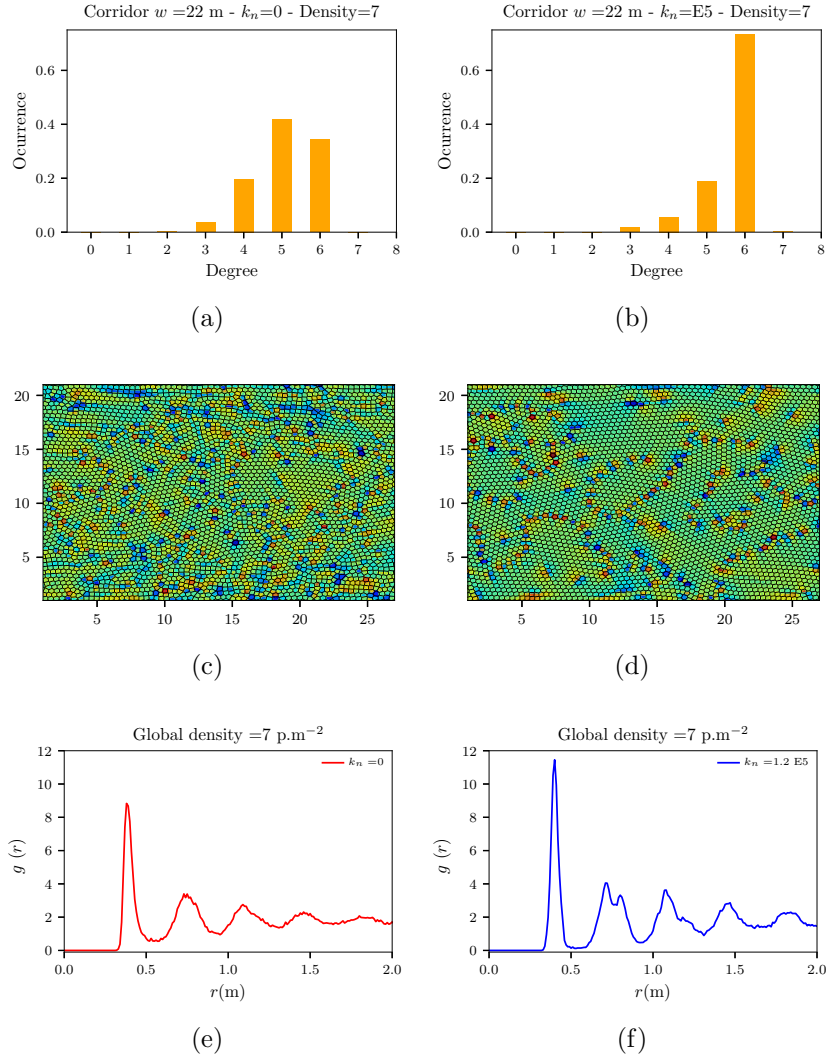


Figure 4:

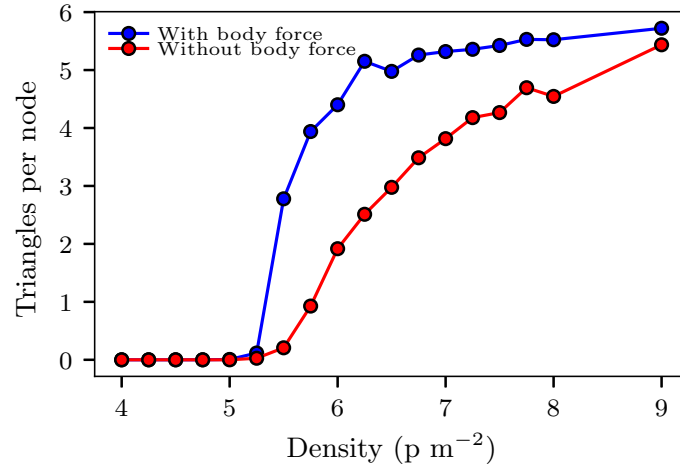


Figure 5:

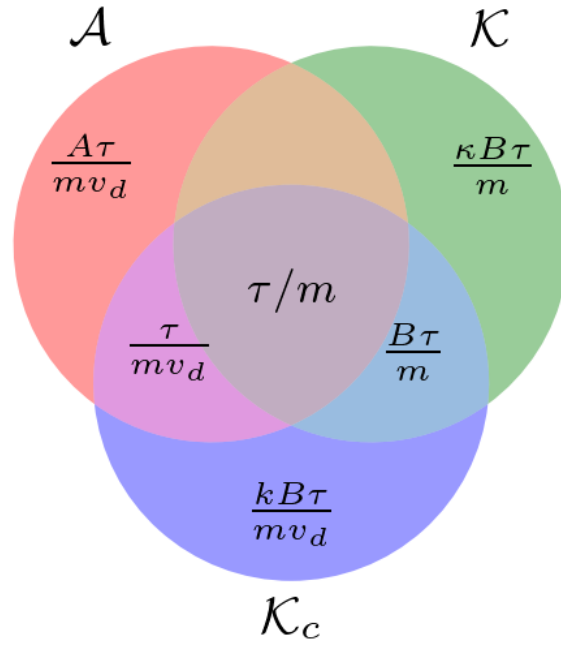


Figure 6: