

Auf der Suche nach Signifikanten Staus

TraffGo HT GmbH

Wunsch

- Klare und konkrete Definition
- Vergleichbarkeit der Ergebnisse
- „Dokument“-Eigenschaft
- Wichtig: Signifikanter Stau \neq „Kritischer“ Stau
- Absolutes Pass/Fail-Kriterium?

Alte Definition & Nutzen

Allgemein

- Stau = hohe Dichte
- Existiert lang genug

Spezifisch

- $\geq 4 \text{ P/m}^2$
- $0,1 \cdot t_{\text{Ref}}$

?

!

- Engstellen identifizieren
- Gegenmaßnahmen umsetzen

Was kennzeichnet einen Stau?

Dichte

- Gängige Größe
- ρ_{\max} modellabh.
- Schlange stehen

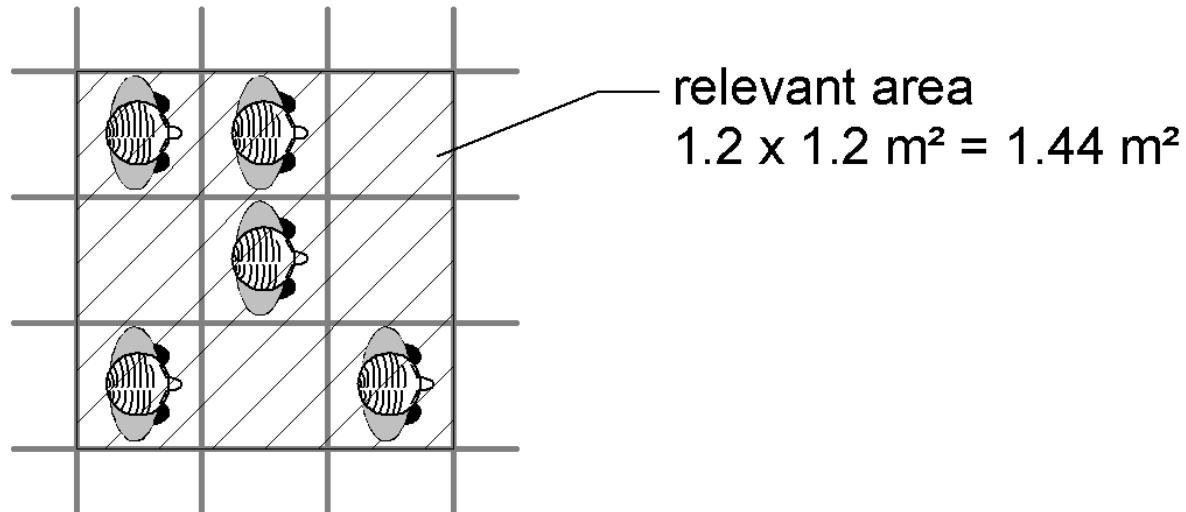
Geschwindigkeit

- Schlange stehen
- % von V_{\max}
- Modellabhängig

Fluss

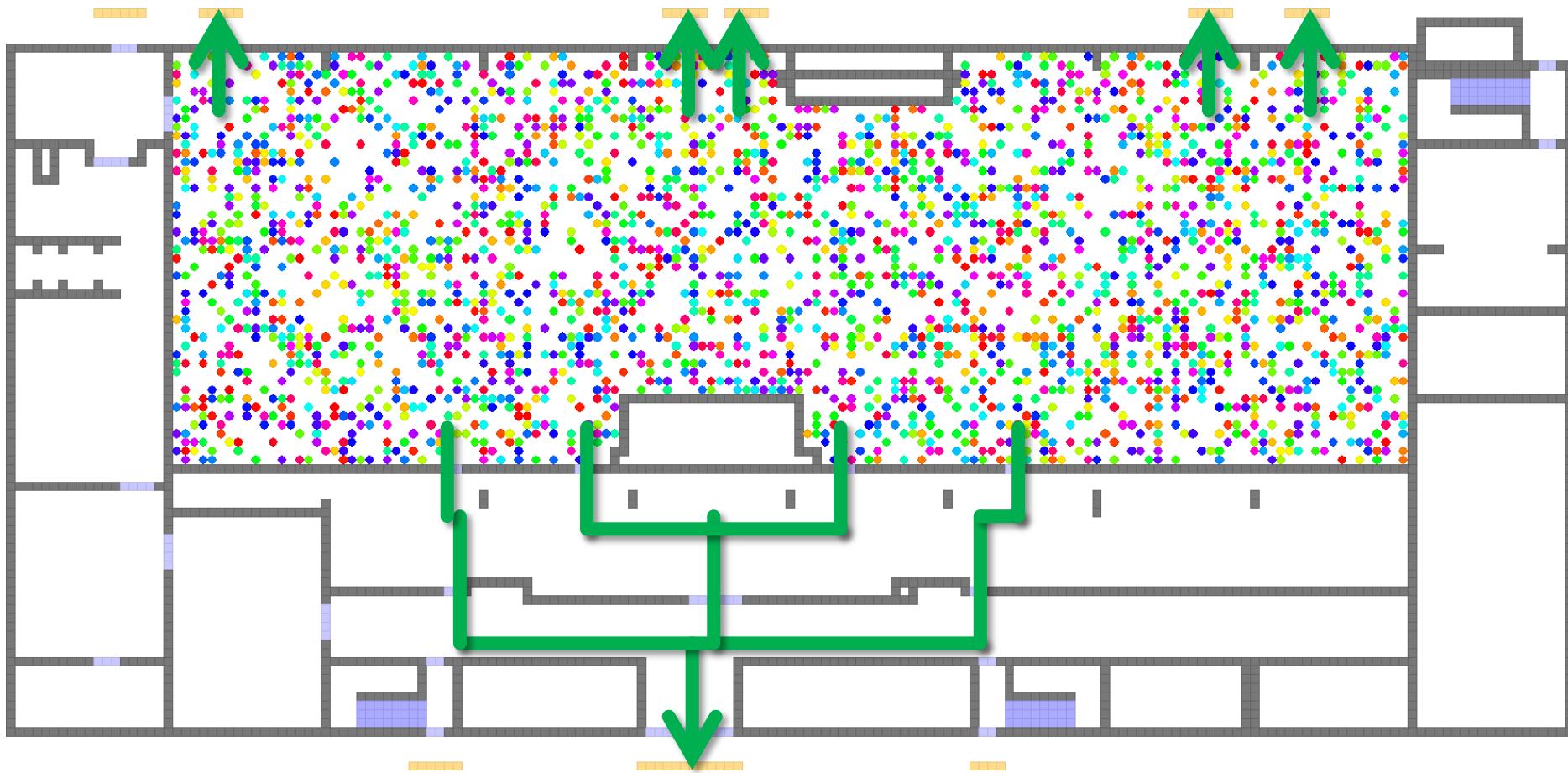
- Nicht eindeutig

Dichteberechnung im Zellenmodell

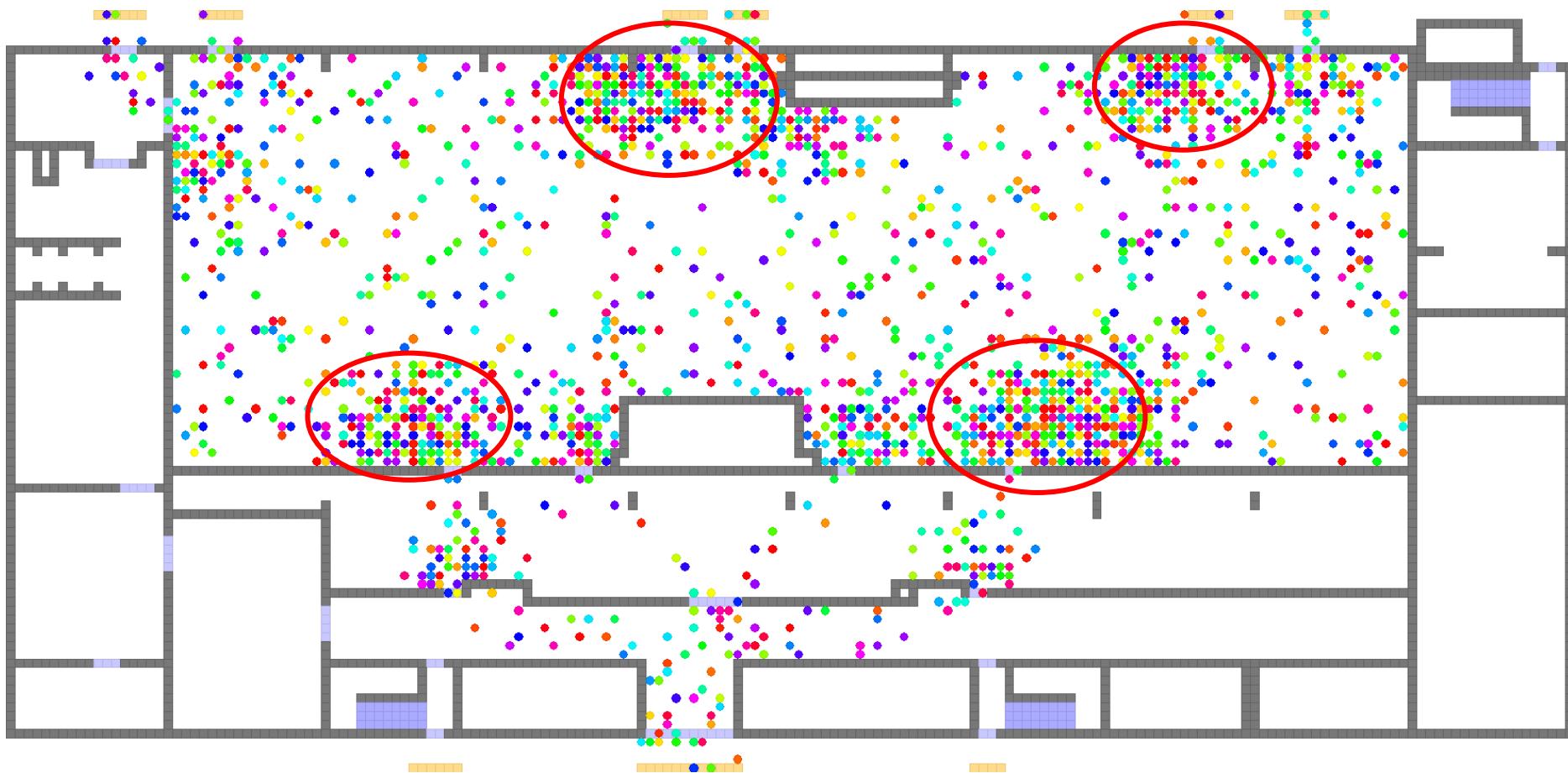


Beispiel, $t = 60$ s

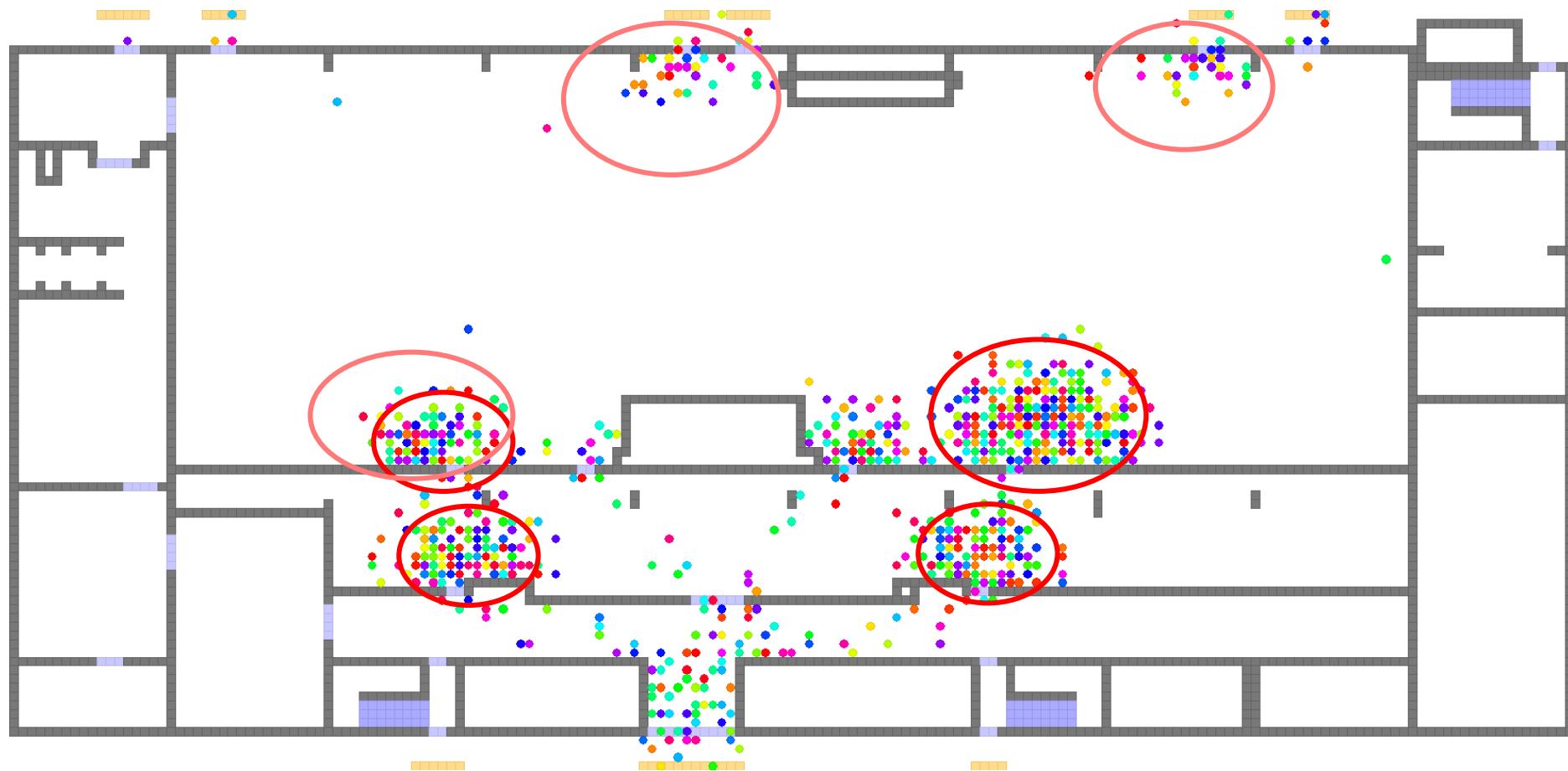
$$t_{\text{Räum}} = 6:29 \text{ min}$$
$$0,1 \cdot t_{\text{Räum}} = 0:39 \text{ min}$$



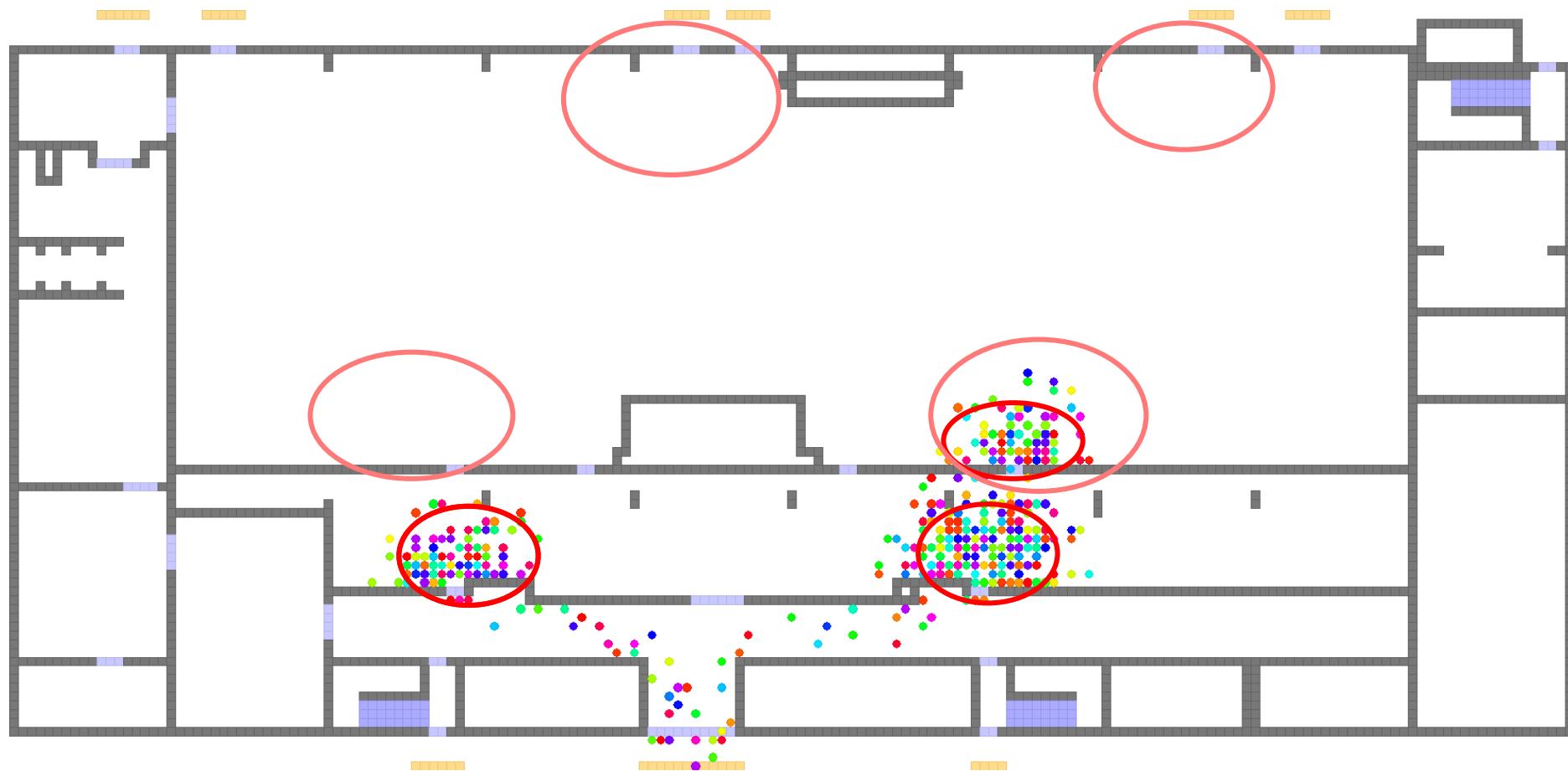
Beispiel, $t = 120$ s



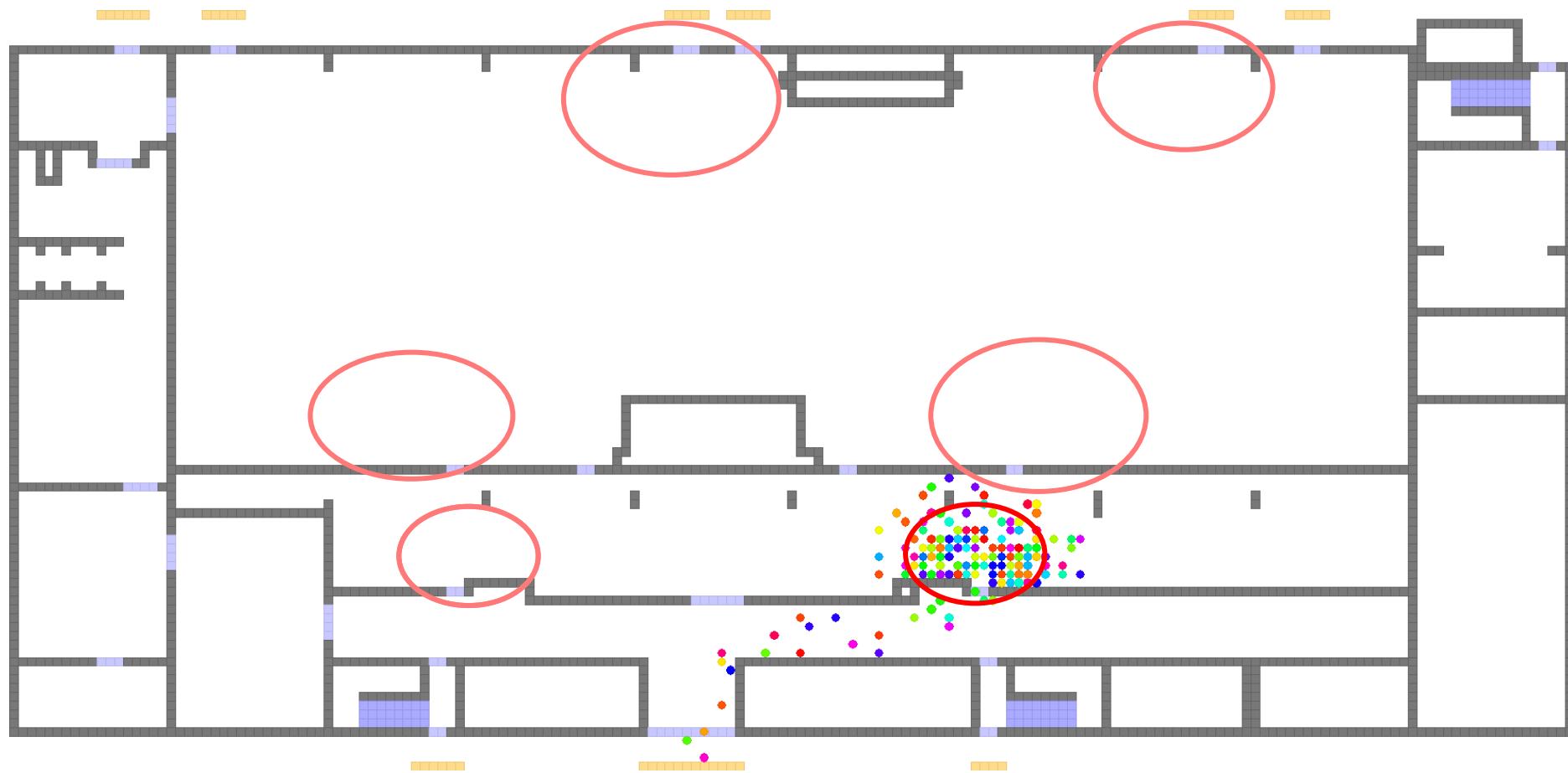
Beispiel, $t = 180$ s



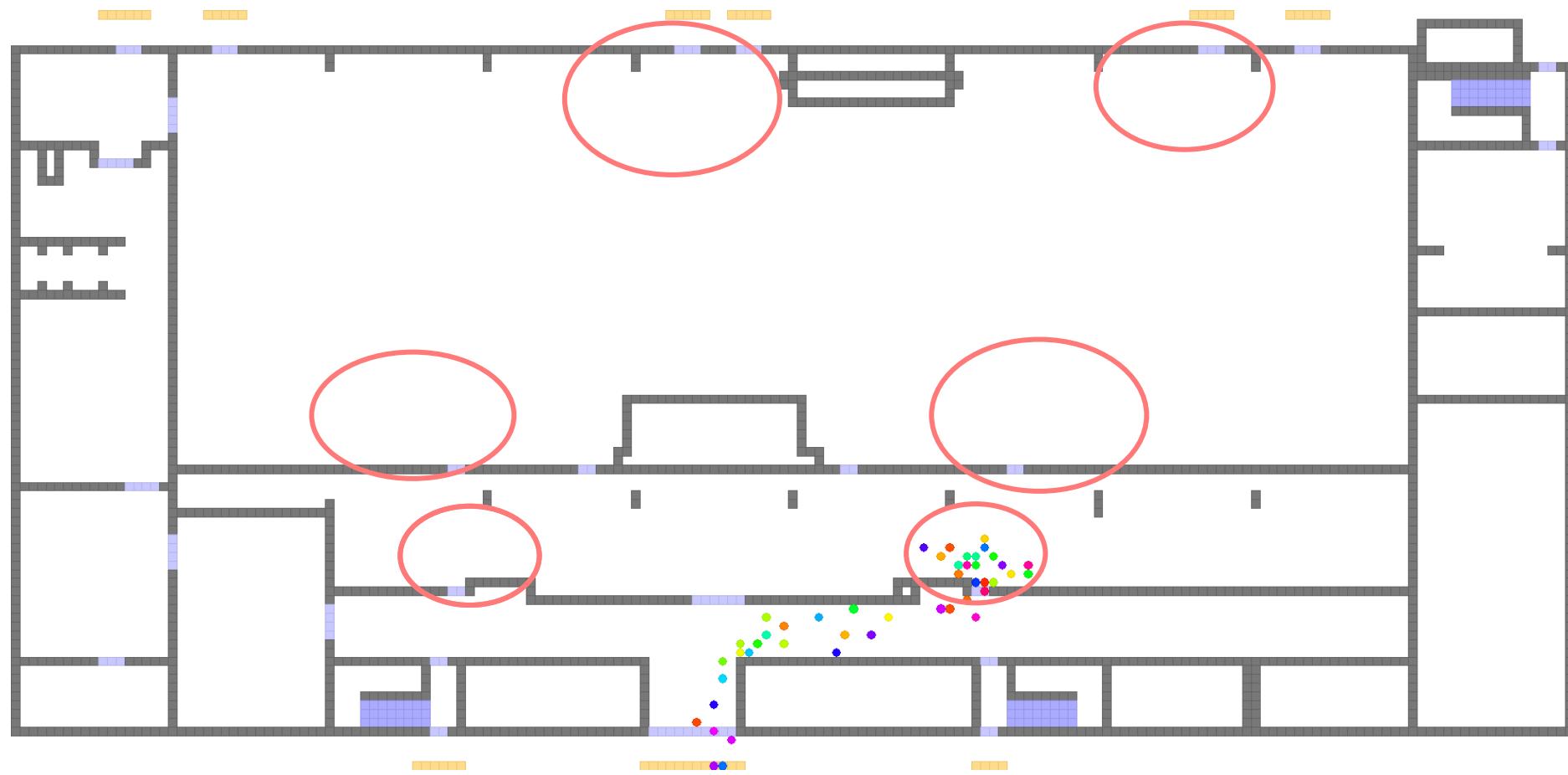
Beispiel, $t = 240$ s



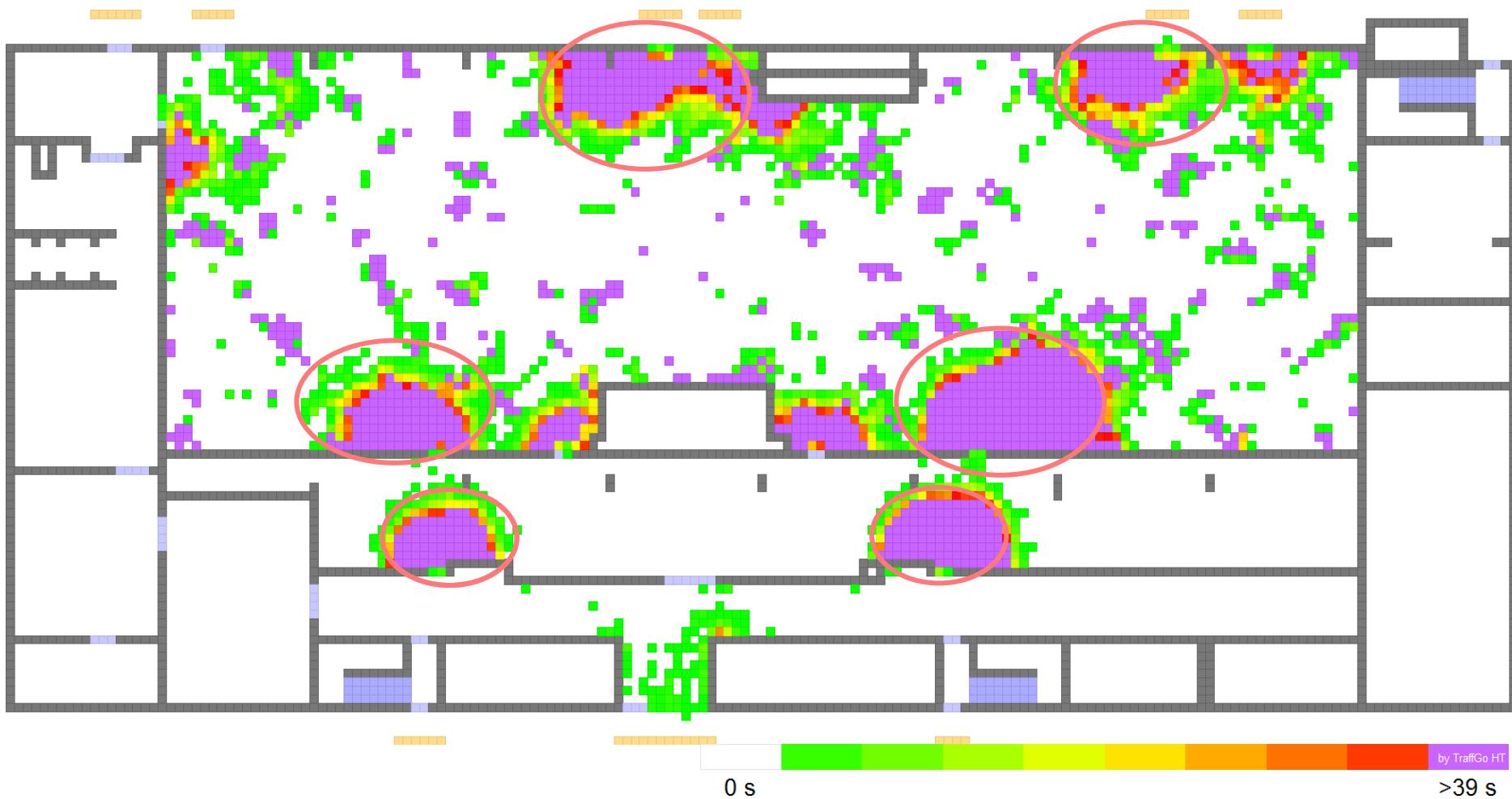
Beispiel, $t = 300$ s



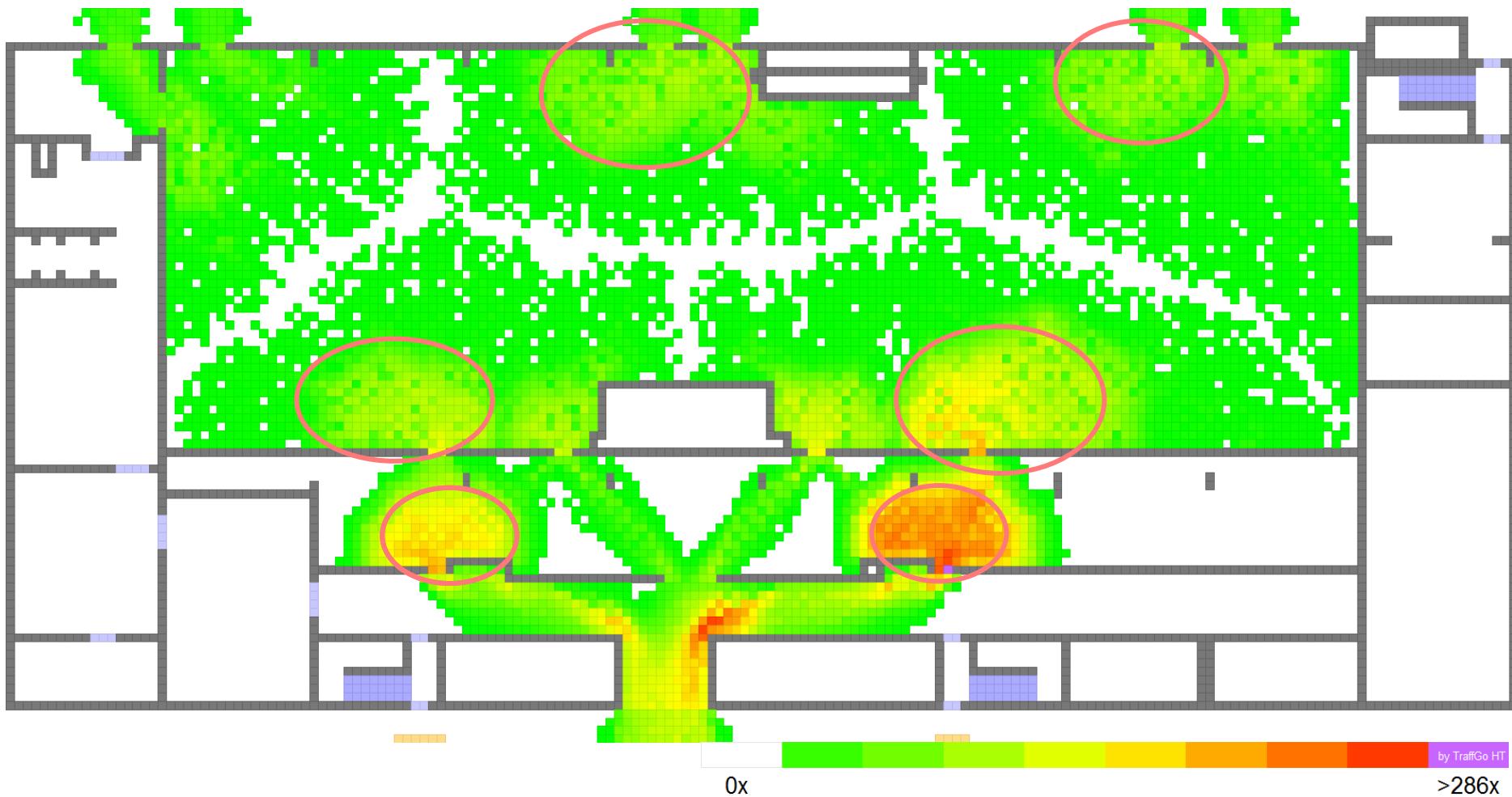
Beispiel, $t = 300$ s



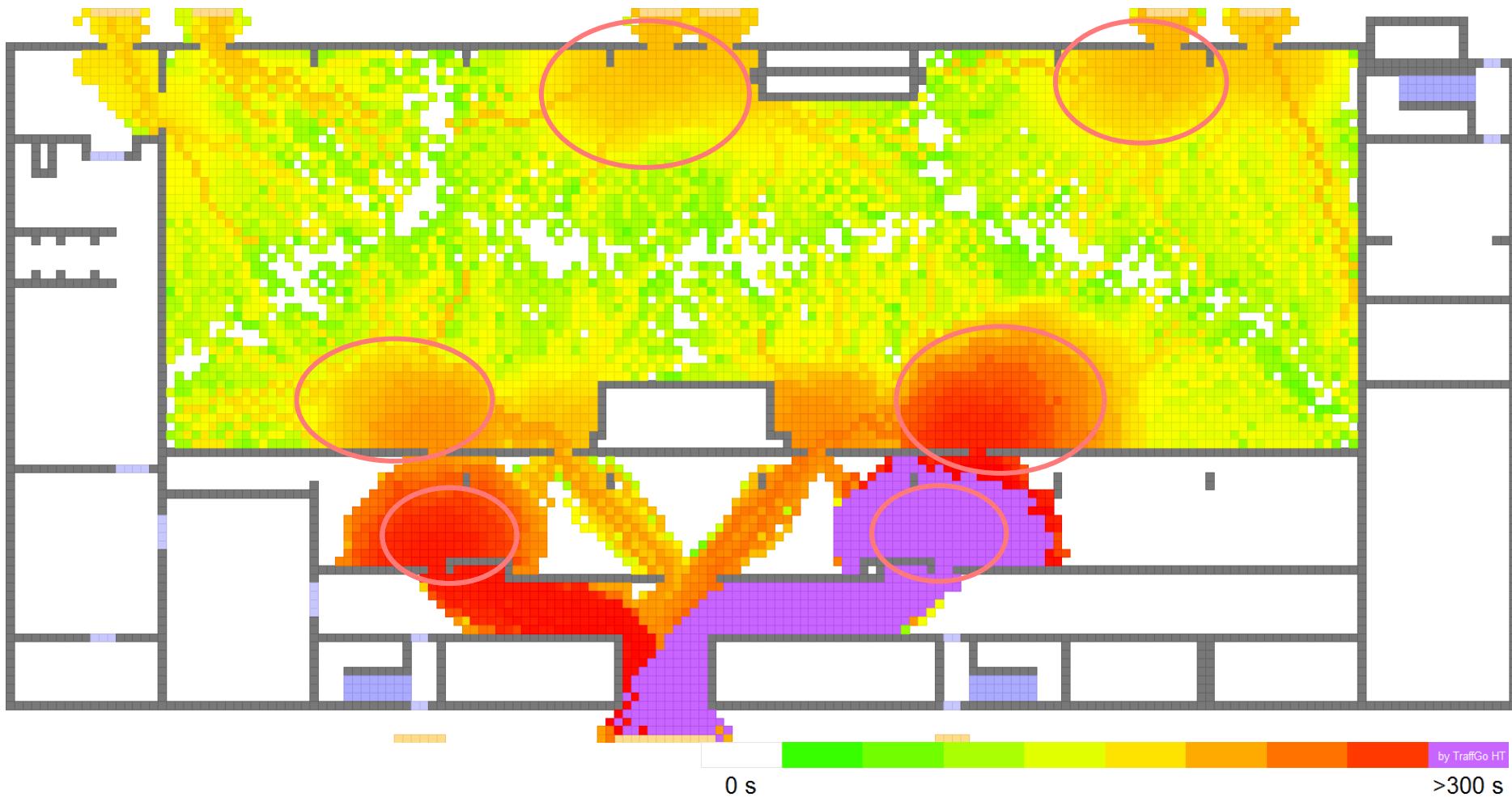
Signifikante Staus (alte Definition)



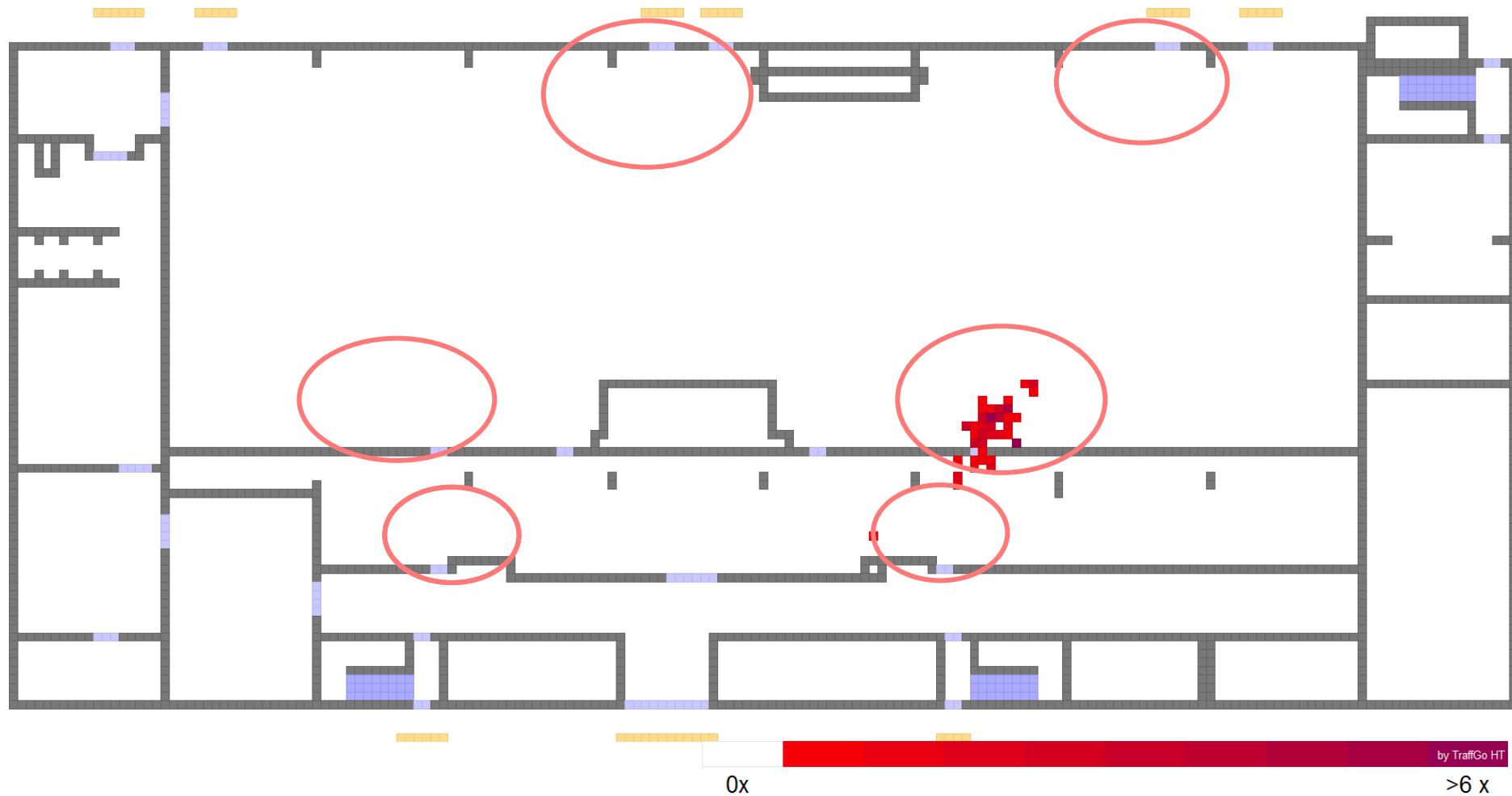
Pfadplot



RSETplot



Warteplot



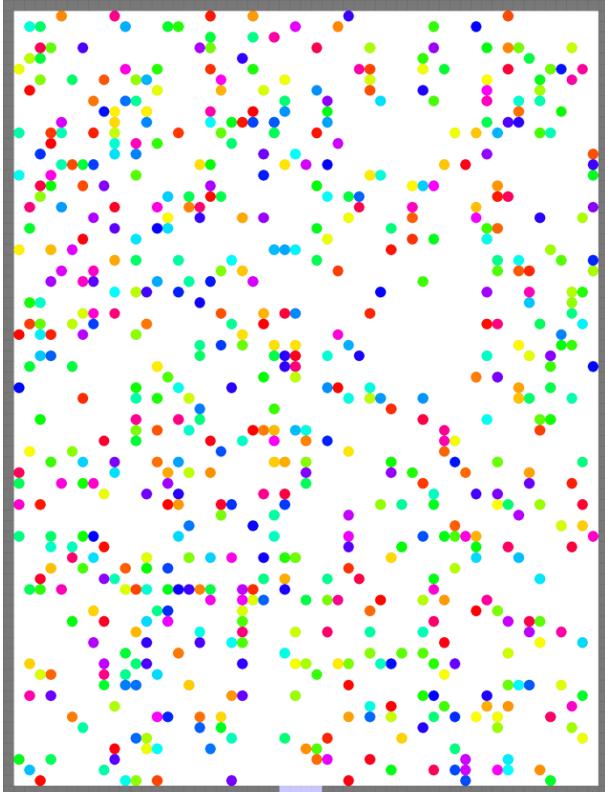
Vorschlag

- Testfall erzeugt Staus
 - Vorgabe: Signifikante Staus
- Modellspezifische Identifikation

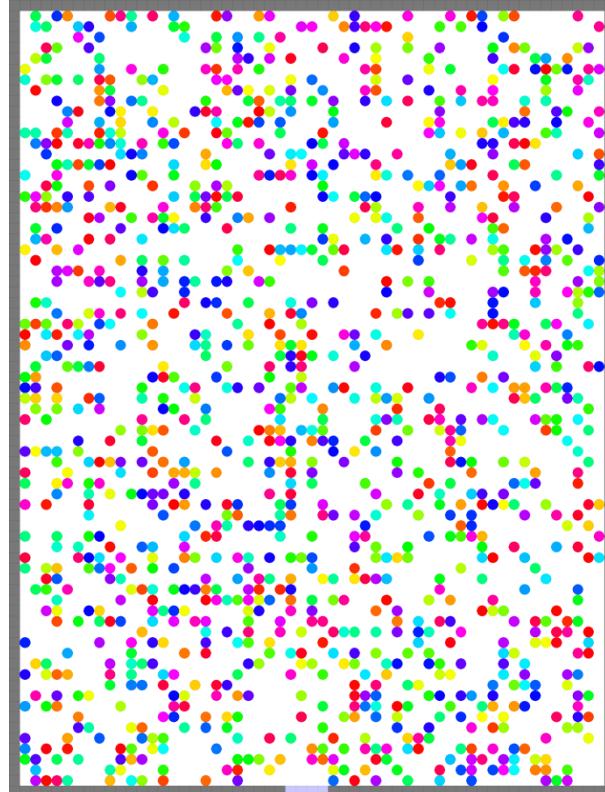
$t_{reakt} = 0 - 5 \text{ min}$

Vorschlag ($t = 0 \text{ min}$)

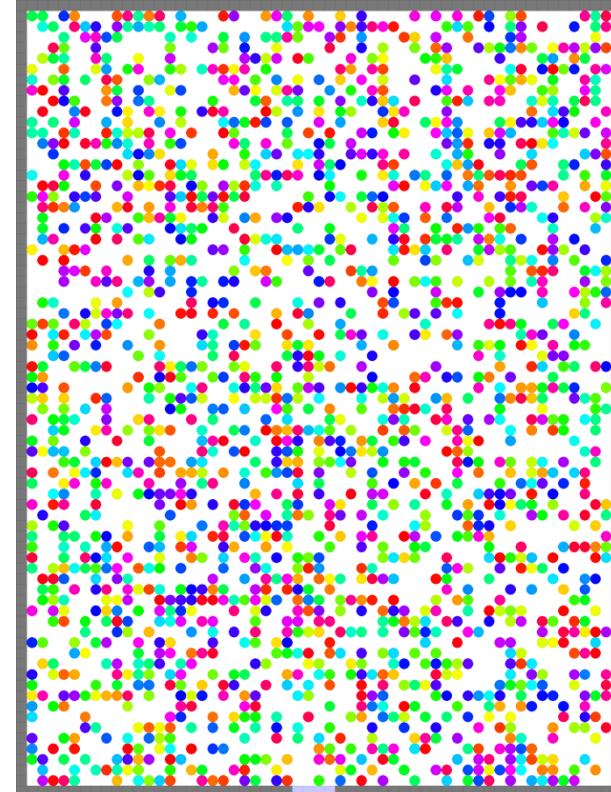
1 P/m^2



2 P/m^2



3 P/m^2



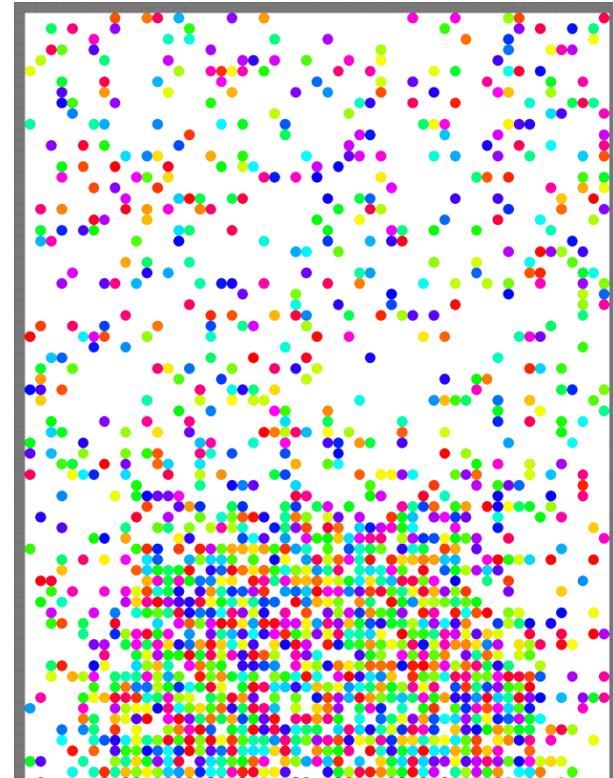
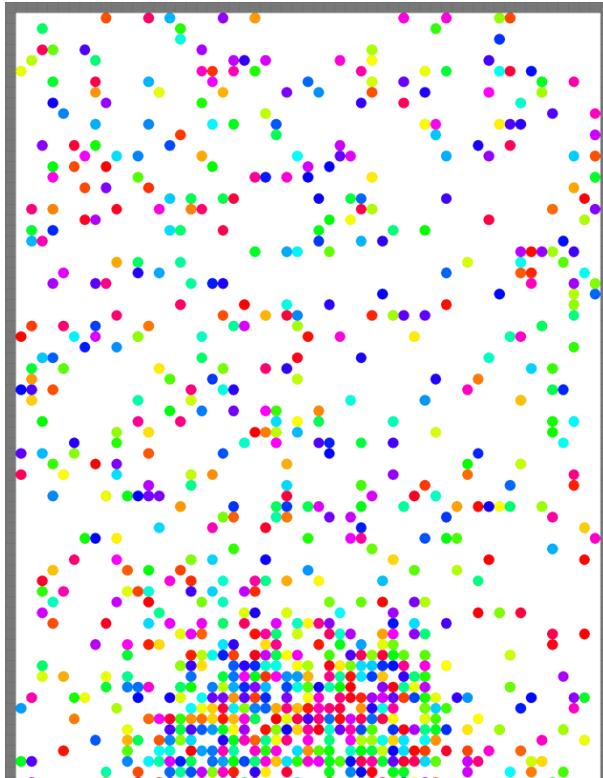
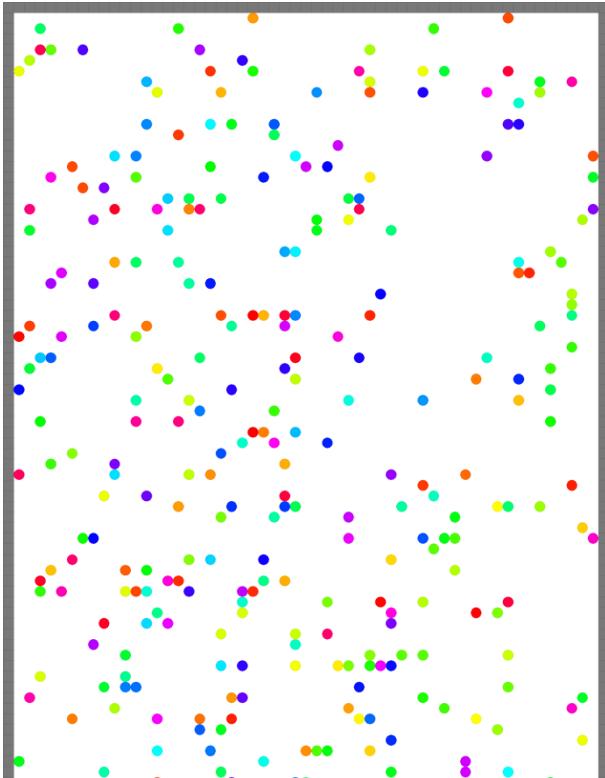
$t_{reakt} = 0 - 5 \text{ min}$

Vorschlag ($t = 3 \text{ min}$)

1 P/m^2

2 P/m^2

3 P/m^2



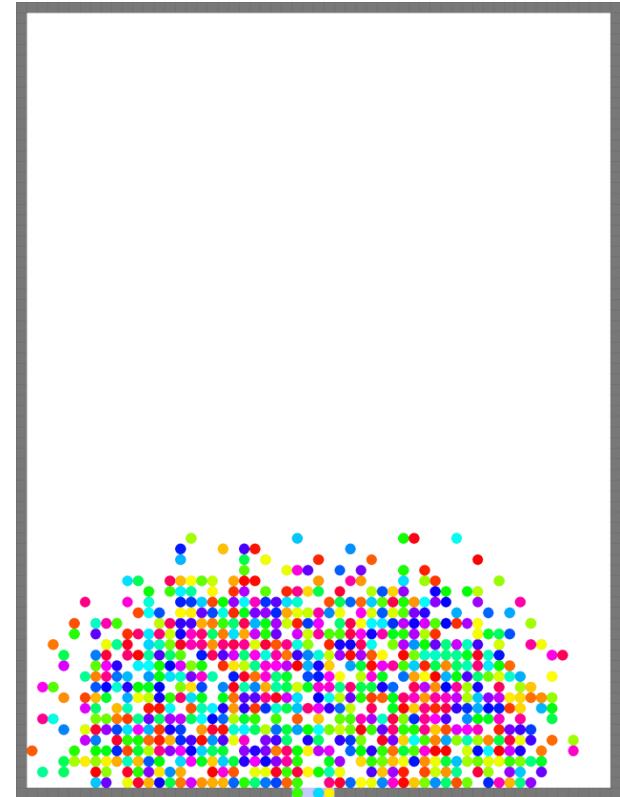
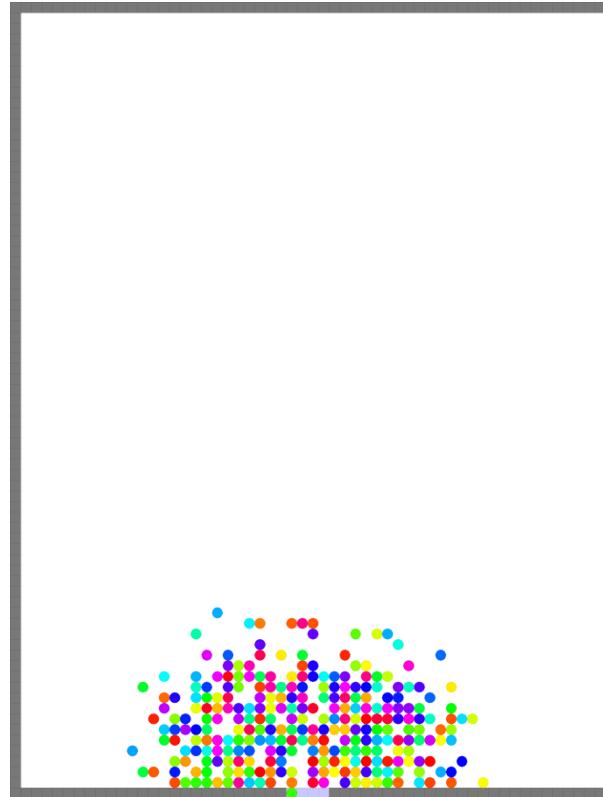
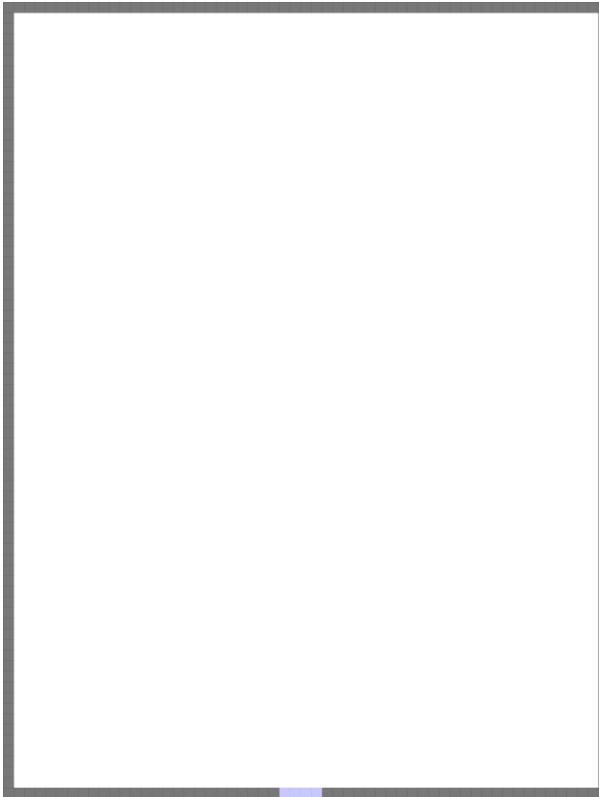
$t_{reakt} = 0 - 5 \text{ min}$

Vorschlag ($t = 6 \text{ min}$)

1 P/m^2

2 P/m^2

3 P/m^2

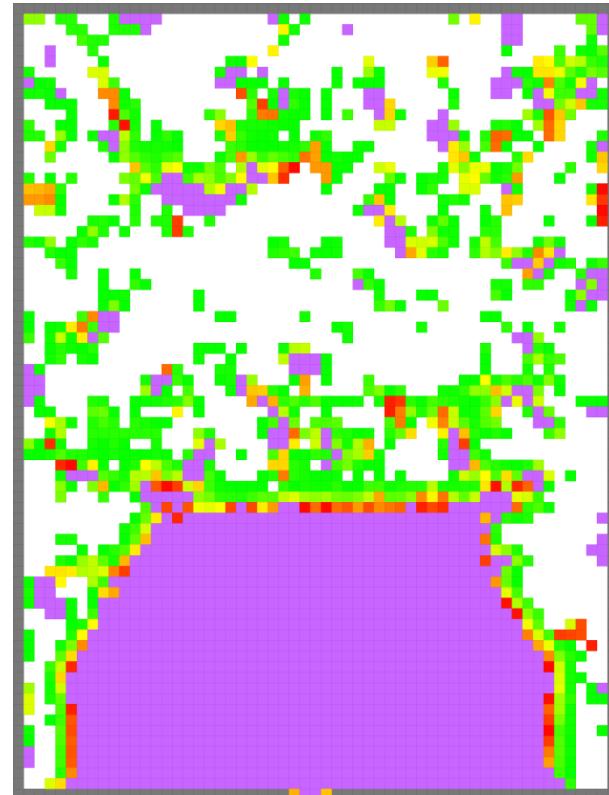
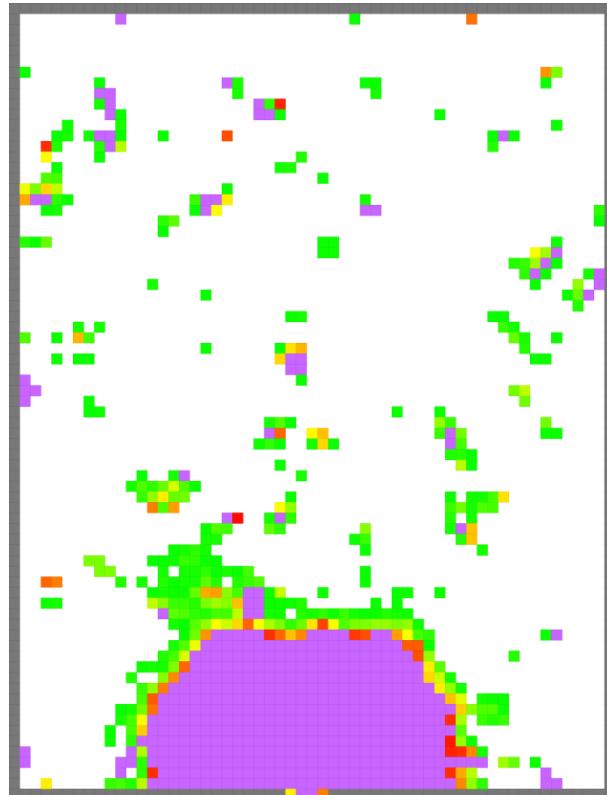
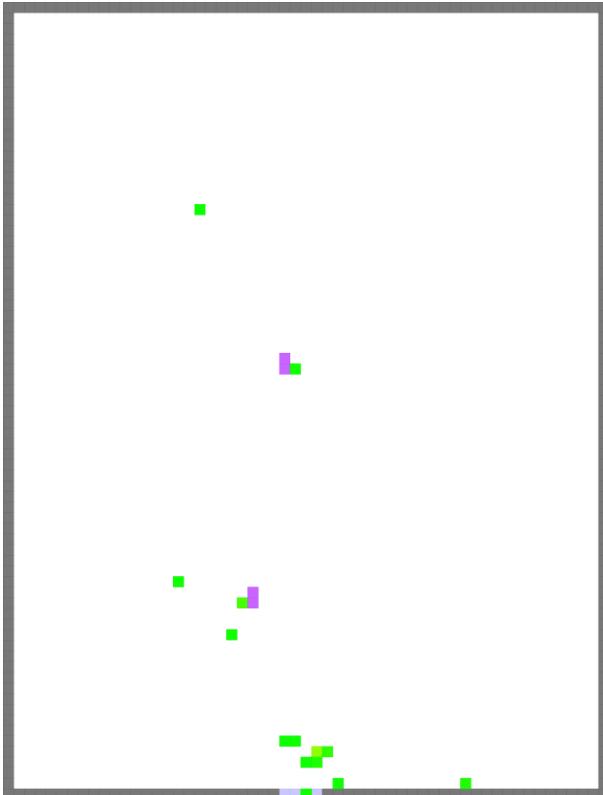


Vorschlag, Dichte Plots (alte Def.)

1 P/m²

2 P/m²

3 P/m²



Vorschlag, Warte Plots

1 P/m²

2 P/m²

3 P/m²

