Errata of the textbook
"Traffic Flow Dynamics – Data, Models, and Simulation"

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In the following, we list only errors relating to the content.

- **Chapter 3.1, page 14:** The second term of Eq. (3.3) is incorrect. The correct equation reads
$$\rho = \frac{Q}{V}\left(\frac{1}{1+\frac{\sigma_V}{V}Q\sigma_{\Delta t}\ r_{v_\alpha,\Delta t_\alpha}}\right) \tag{3.4}$$
where $\sigma_{\Delta t}$ is the standard deviation of the (vehicle-to-vehicle) time headways.

- **Chapter 3.3, page 19:** Equation (3.20) is incorrect. The correct equation reads
$$\rho = \frac{Q}{V}\left(\frac{1}{1+\frac{\sigma_V}{V}Q\sigma_{\Delta t}\ r_{v_\alpha,\Delta t_\alpha}}\right) \tag{3.21}$$
where $\sigma_{\Delta t}$ is the standard deviation of the (vehicle-to-vehicle) time headways.

- **Chapter 8.3.2, page 86, Eq. (8.9):** Replace $Q_\mathrm{e}(\rho_1)$ by $Q_\mathrm{e}(\rho_2)$ and vice versa

- **Chapter 9.5, page 146:** There are sign errors in Equation (9.31): The correct equation reads
$$S_\mathrm{inh} = -\frac{Q^2}{\rho I}\frac{\mathrm{d}I}{\mathrm{d}x} + \frac{Q\nu_\mathrm{rmp}}{\rho} + \rho A_\mathrm{rmp}. \tag{9.31}$$

- **Chapter 9.5.5, page 152:** Spurious "S" at the beginning of the text below Eq. (9.45)

- **Solutions to Problem 9.5, page 455:** In the last equation of this solution, there are sign errors related to that of Chapter 9.5: The right-hand side of this equation should read
$$\frac{\rho V_\mathrm{e}^* - Q}{\tau} - \frac{Q^2}{\rho I}\frac{\mathrm{d}I}{\mathrm{d}x} + \frac{Q\nu_\mathrm{rmp}}{\rho} + \rho A_\mathrm{rmp}.$$

- **Chapter 10.8, page 176:** Replace $\frac{\partial V(x,t)}{\partial t}t$ by $\frac{\partial V(x,t)}{\partial t}T$ in the second line of Eq. (10.29).

- **Chapter 11.1, page 182:** replace "$=\geq$" by "$=$" in Eq. (11.3)

- **Table 11.2, page 190:** The typical parameter values of this table are valid for cars, only. On freeways/highways, trucks (and their drivers) are characterized by a desired speed of 80 km/h. In any scenario, the time-gap parameter of trucks is of the order of 2 s, and the acceleration and comfortable deceleration parameters are somewhat lower than that for cars, e.g.,

Parameter	Cars Freeway	Cars City	Trucks Freeway	Pedestrians Single File
Desired speed v_0	120 km/h	54 km/h	80 km/h	5 km/h
Time gap T	1.0 s	1.0 s	1.8 s	0.8 s
Minimum gap s_0	2 m	2 m	3 m	0.2 m
Acceleration exponent δ	4	4	4	1
Acceleration a	1.0 m/s^2	1.5 m/s^2	0.5 m/s^2	1.5 m/s^2
Comfortable deceleration b	1.5 m/s^2	2.0 m/s^2	1.0 m/s^2	2.0 m/s^2