

Errata to: Optimization of Stochastic Discrete Systems and Control on Complex Networks

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Errata to:

**D. Lozovanu and S. Pickl, *Optimization of Stochastic Discrete Systems and Control on Complex Networks*,
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Below listed corrections need to be incorporated in published volume:

The online version of the original book can be found under
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Page No	Published content	Replace with
Copy right page: Author city name	"Munchen"	"Munich"
Page 124: Equation (2.27)	$\begin{cases} h_x = \min_{y \in X(x)} h_y, & \forall x \in X_C; \\ h_x = \sum_{y \in X(x)} p_{x,y} h_y, & \forall x \in X_N. \end{cases} \quad (2.27)$	$\begin{cases} h_x = \min_{y \in X(x)} h_y, & \forall x \in X_C; \\ h_x = \sum_{y \in X(x)} p_{x,y} h_y, & \forall x \in X_N. \end{cases} \quad (2.27)$
Page 164: Equation (2.75)	$\omega_x = \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y \right\}, \quad \forall x \in X, \quad (2.75)$	$\omega_x = \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y, \quad \forall x \in X, \quad (2.75) \right.$
Page 165: Equation	$\begin{aligned} e_x + \omega_x &\leq \mu_{x,a} + \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, & \forall a \in A(x); \\ \omega_x &\leq \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, & \forall a \in A(x). \end{aligned}$	$\begin{aligned} e_x + \omega_x &\leq \mu_{x,a} + \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, & \forall a \in A(x); \\ \omega_x &\leq \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, & \forall a \in A(x), \end{aligned}$
Page 235: Equation	$\begin{aligned} \left\{ \begin{array}{l} e_x + \omega_x \leq \mu_{x,a} + \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, \\ \omega_x \leq \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X, \end{array} \right. \quad \forall a \in A(x). \quad (2.78) \\ \left\{ \begin{array}{l} e_x + \omega_x = \mu_{x,(x)} + \sum_{y \in X} p_{x,y}^{s(x)} \varepsilon_y, & \forall x \in X; \\ \omega_x = \sum_{y \in X} p_{x,y}^{s(x)} \omega_y, & \forall x \in X \end{array} \right. \quad (2.79) \end{aligned}$	$\begin{aligned} \left\{ \begin{array}{l} e_x + \omega_x \leq \mu_{x,a(x)} + \sum_{y \in X} p_{x,y}^a \varepsilon_y, & \forall x \in X; \\ \omega_x = \sum_{y \in X} p_{x,y}^a \omega_y, & \forall x \in X \end{array} \right. \quad (2.79) \\ \left\{ \begin{array}{l} \varepsilon_x + \omega_x = \mu_{x,(x)} + \sum_{y \in X} p_{x,y}^{s(x)} \varepsilon_y, & \forall x \in X; \\ \omega_x = \sum_{y \in X} p_{x,y}^{s(x)} \omega_y, & \forall x \in X \end{array} \right. \quad (2.79) \end{aligned}$
		$\begin{aligned} \left\{ \begin{array}{l} \omega_x = \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_x \right\}, & \forall_x \in X_1; \\ \omega_x = \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_x \right\}, & \forall_x \in X_2, \end{array} \right. \quad (3.18) \\ s^{1*}(x) \in \left(\arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_x^* \right\} \right) \cap \left(\arg \max_{a \in A(x)} \left\{ \mu_{x,a} + \sum_{y \in X} p_{x,y}^a \omega_y^* \right\} \right), \quad \forall x \in X_1 \end{aligned}$
		$\begin{aligned} \left\{ \begin{array}{l} \omega_x = \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y \right\}, & \forall_x \in X_1; \\ \omega_x = \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y \right\}, & \forall_x \in X_2, \end{array} \right. \quad (3.18) \\ s^{1*}(x) \in \left(\arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^* \right\} \right) \cap \left(\arg \min_{a \in A(x)} \left\{ \mu_{x,a} + \sum_{y \in X} p_{x,y}^a \omega_y^* \right\} \right), \quad \forall x \in X_1 \end{aligned}$
		(continued)

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Page 236: Equation (3.21)	$\begin{aligned} s^*(x) \in & \left(\arg \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{xy}^a \omega_y^* \right\} \right) \cap \left(\arg \min_{a \in A(x)} \left\{ \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^* \right\} \right), \\ & \forall x \in X_2 \end{aligned}$	$s^{2*}(x) \in \left(\arg \min_{a \in A(x)} \left\{ \sum_{y \in X} p_{xy}^a \omega_y^* \right\} \right) \cap \left(\arg \min_{a \in A(x)} \left\{ \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^* \right\} \right).$ $\forall x \in X_2$
Page 236: Equation (3.22)	$\begin{cases} \varepsilon_x + \omega_x \geq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_1, a = \bar{s}^1(x); \\ \varepsilon_x + \omega_x = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_2, a = \bar{s}^2(x); \\ \omega_x = \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_1, a = \bar{s}^1(x); \\ \omega_x = \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_2, a = \bar{s}^2(x) \end{cases}$	$\begin{cases} \varepsilon_x + \omega_x = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_1, a = \bar{s}^1(x); \\ \varepsilon_x + \omega_x = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_2, a = \bar{s}^2(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_1, a = \bar{s}^1(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_2, a = \bar{s}^2(x) \end{cases}$
Page 237: Equation (3.21)	$\begin{cases} \varepsilon_x^* + \omega_x^* \geq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_1, a \in A(x); \\ \varepsilon_x^* + \omega_x^* = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_2, a = \bar{s}^2(x); \\ \omega_x^* \geq \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_1, a \in A(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_2, a = \bar{s}^2(x) \end{cases}$	$\begin{cases} \varepsilon_x^* + \omega_x^* \geq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_1, a \in A(x); \\ \varepsilon_x^* + \omega_x^* = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_2, a = \bar{s}^2(x); \\ \omega_x^* \geq \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_1, a \in A(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_2, a = \bar{s}^2(x) \end{cases}$
Page 237: Equation (3.22)	$\begin{cases} \varepsilon_x^* + \omega_x^* = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_1, a = \bar{s}^1(x); \\ \varepsilon_x^* + \omega_x^* \leq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_2, a \in A(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_1, a = \bar{s}^1(x); \\ \omega_x^* \leq \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_2, a \in A(x) \end{cases}$	$\begin{cases} \varepsilon_x^* + \omega_x^* = \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_1, a = \bar{s}^1(x); \\ \varepsilon_x^* + \omega_x^* \leq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y^*, & \forall x \in X_2, a \in A(x); \\ \omega_x^* = \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_1, a = \bar{s}^1(x); \\ \omega_x^* \leq \sum_{y \in X} p_{xy}^a \omega_y^*, & \forall x \in X_2, a \in A(x) \end{cases}$
Page 237: Equation (3.23)	$\begin{cases} \varepsilon_x + \omega_x \geq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_1, a \in A(x); \\ \varepsilon_x + \omega_x \leq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_2, a \in A(x); \\ \omega_x \geq \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_1, a \in A(x); \\ \omega_x \leq \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_2, a \in A(x) \end{cases}$	$\begin{cases} \varepsilon_x + \omega_x \geq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_1, a \in A(x); \\ \varepsilon_x + \omega_x \leq \mu_{x,a} + \sum_{y \in X} p_{xy}^a \varepsilon_y, & \forall x \in X_2, a \in A(x); \\ \omega_x \geq \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_1, a \in A(x); \\ \omega_x \leq \sum_{y \in X} p_{xy}^a \omega_y, & \forall x \in X_2, a \in A(x) \end{cases}$

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Page No	Published content	Replace with
Page 238: Equation Page 238: Equation	$s_k^1(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_k^1-1} \right\}, \quad \forall x \in X_1;$ $s_k^2(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_k^2-1} \right\}, \quad \forall x \in X_2$ <p>and set $s_k = s_{k-1}$ if</p> $s_{k-1}^1(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_{k-1}^1-1} \right\}, \quad \forall x \in X_1;$ $s_{k-1}^2(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_{k-1}^2-1} \right\}, \quad \forall x \in X_2.$	$s_k^1(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_k^1-1} \right\}, \quad \forall x \in X_1;$ $s_k^2(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_k^2-1} \right\}, \quad \forall x \in X_2$ <p>and set $s_k = s_{k-1}$ if</p> $s_{k-1}^1(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_{k-1}^1-1} \right\}, \quad \forall x \in X_1;$ $s_{k-1}^2(x) \in \arg \max_{a \in A(x)} \left\{ \sum_{y \in X} p_{x,y}^a \omega_y^{s_{k-1}^2-1} \right\}, \quad \forall x \in X_2.$