Errata sheet for :

Navigation Intégrée d'un Engin Sous–Marin Remorqué. Filtrage Non-Linéaire des Systèmes avec Contraintes et/ou Mesures Parfaites

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The following errors / misprints have been found :

- In the denominator (normalization factor) of the conditional density on the bottom pf page II-11, one should read

$$\int_{\mathbf{R}^m} \qquad \text{instead of :} \qquad \int_{\mathbf{R}}^{m}$$

- In the definition of the unnormalized distribution $\widetilde{\mu}_\alpha$ on page II-31, one should read :

$$\langle \widetilde{\mu}_\alpha, \phi \rangle = (2\,\pi)^{d/2} \int_{M_\alpha} \phi(y)\, \exp\{\tfrac{1}{2}|\xi_\alpha(y)|^2\}\, \frac{p(y)}{\sqrt{\det I_\alpha^\perp(y)}}\, \lambda_\alpha(dy)\ ,$$

  i.e. the test function should be present in the integrand.

- In the definition of $g_\alpha(r)$ in the middle of page II-32, one should read :

$$g_\alpha(r) \stackrel{\triangle}{=} \inf_{\theta \notin M_\alpha^r} K_\alpha(\theta)\ ,$$

  i.e. the infimum is on the complement of the r–neighbourhood M_α^r

- In the definition of the lower bound V_α given in Remark 6.1, page II-32, for the normalizing constant $\langle \widetilde{\mu}_\alpha, \mathbf{1} \rangle$, one should read :

$$V_\alpha = (2\,\pi)^{d/2} \int_{M_\alpha} \frac{p(y)}{\sqrt{\det I_\alpha^\perp(y)}}\, \lambda_\alpha(dy)\ ,$$

  i.e. the constant $(2\,\pi)^{d/2}$ is missing.

- In the middle of page II-36, one should read

$$|\langle \delta_{\mathrm{II}}^\varepsilon, \phi \rangle| \le \|\phi\|\, s_1(r) \int_{M_\alpha} \int_{N_y M_\alpha} p(y)\, [\exp\{s_2(r)\,|u|^2\} - 1]\, \exp\{-\tfrac{1}{2}\, Q_{\alpha,y}(u)\}\, \lambda_{\alpha,y}(du)\, \lambda_\alpha(dy)\ ,$$

  and in (6.5) five lines below, one should read

$$|\langle \delta_{\mathrm{II}}^\varepsilon, \phi \rangle| \le \|\phi\|\, s_1(r) \int_{M_\alpha} (\frac{\exp\{\frac{1}{2}\,|\xi_\alpha(r,y)|^2\}}{\sqrt{\det J_\alpha(r,y)}} - \frac{\exp\{\frac{1}{2}\,|\xi_\alpha(y)|^2\}}{\sqrt{\det I_\alpha^\perp(y)}})\, p(y)\, \lambda_\alpha(dy)\ .$$

- Page II-37, 6th line from the top, one should read *"nondegenerate"* instead of *"non degenerate"*.
- In the concluding step page II-40, the first inequality should read

$$\leq \sup_{\|\phi\|_{\mathrm{BL}=1}} \frac{|\langle \widetilde{\mu}^{\varepsilon}, \phi\rangle - \langle \widetilde{\mu}_{\alpha}, \phi\rangle|}{\langle \widetilde{\mu}_{\alpha}, \mathbf{1}\rangle} + \sup_{\|\phi\|_{\mathrm{BL}=1}} \frac{|\langle \widetilde{\mu}^{\varepsilon}, \phi\rangle|}{\langle \widetilde{\mu}^{\varepsilon}, \mathbf{1}\rangle} \frac{|\langle \widetilde{\mu}^{\varepsilon}, \mathbf{1}\rangle - \langle \widetilde{\mu}_{\alpha}, \mathbf{1}\rangle|}{\langle \widetilde{\mu}_{\alpha}, \mathbf{1}\rangle} .$$

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