

The supplementary materials for "Robust SiZer approach for varying coefficient models"

The full version of local LAD-based robust SiZer plots and the local least-squares-based SiZer plots .

Figure Captions

Figure 1. Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1.

Figure 2. Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2.

Figure 3. Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3.

Figure 4. Model errors drawn from the cauchy distribution $C(0, 0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1.

Figure 5. Model errors drawn from the cauchy distribution $C(0, 0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2 .

Figure 6. Model errors drawn from the cauchy distribution $C(0, 0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3.

Figure 7. Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1.

Figure 8. Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2.

Figure 9. Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3.

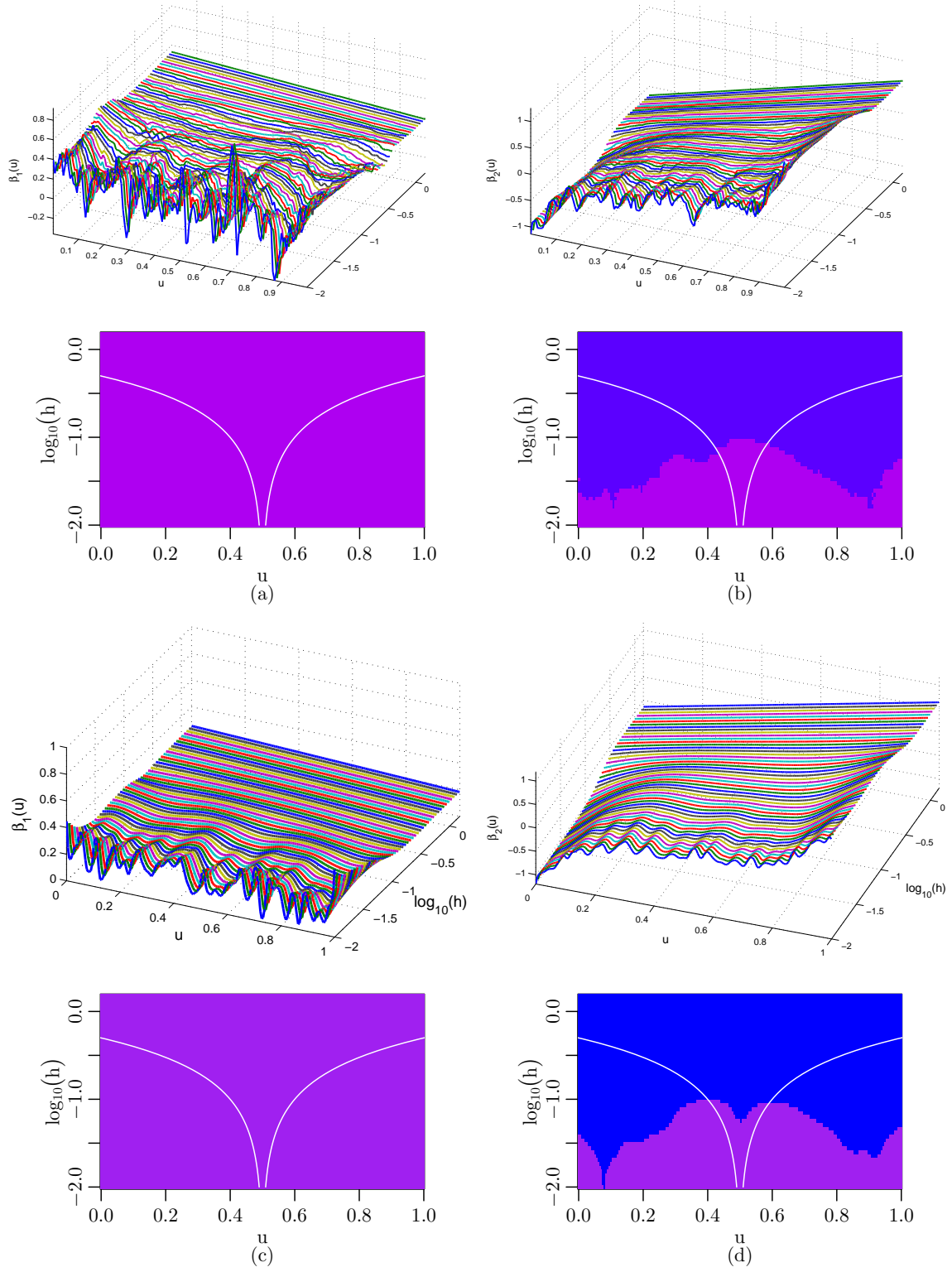


Figure S.1: Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1 .

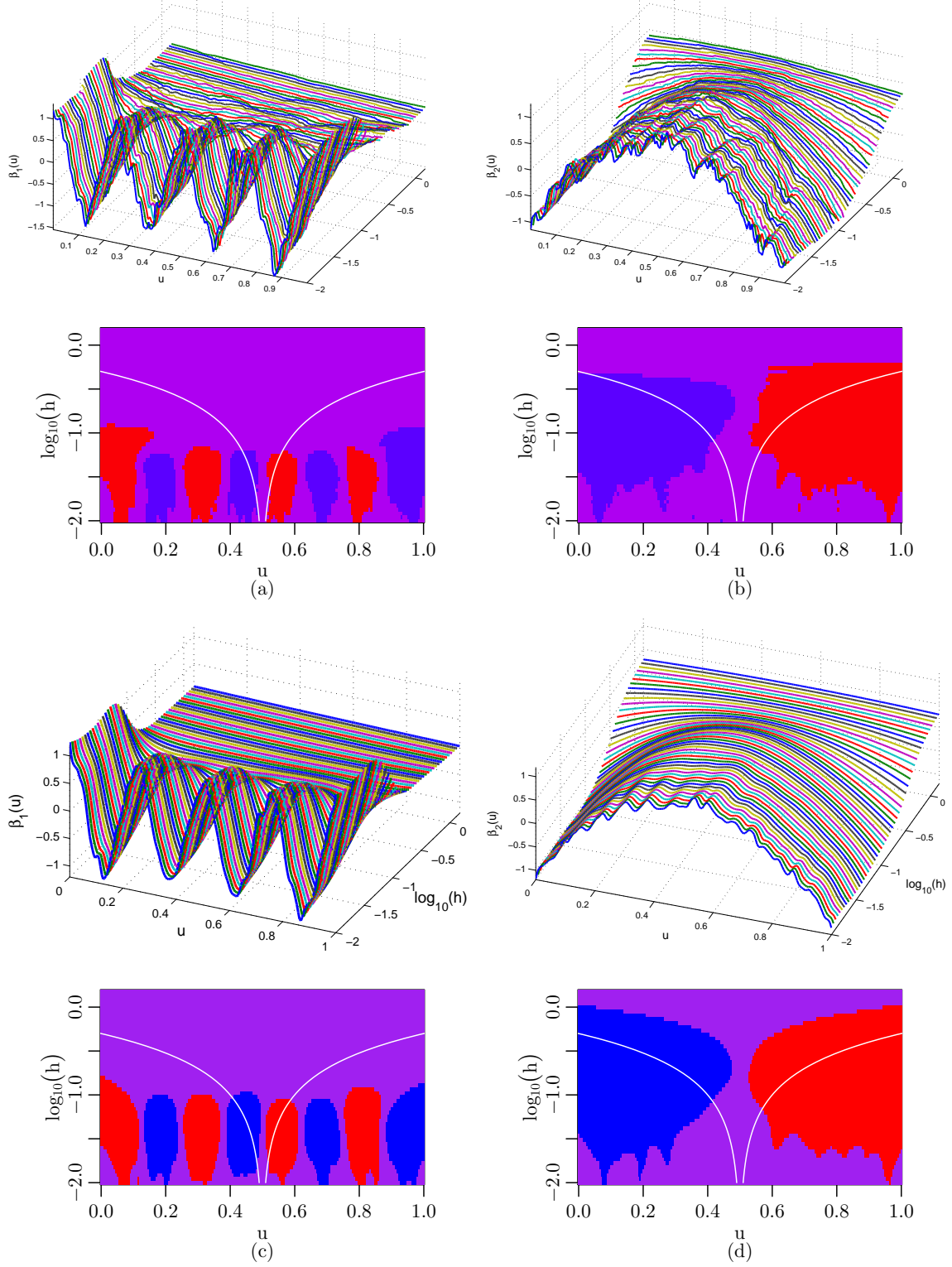


Figure S.2: Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2 .

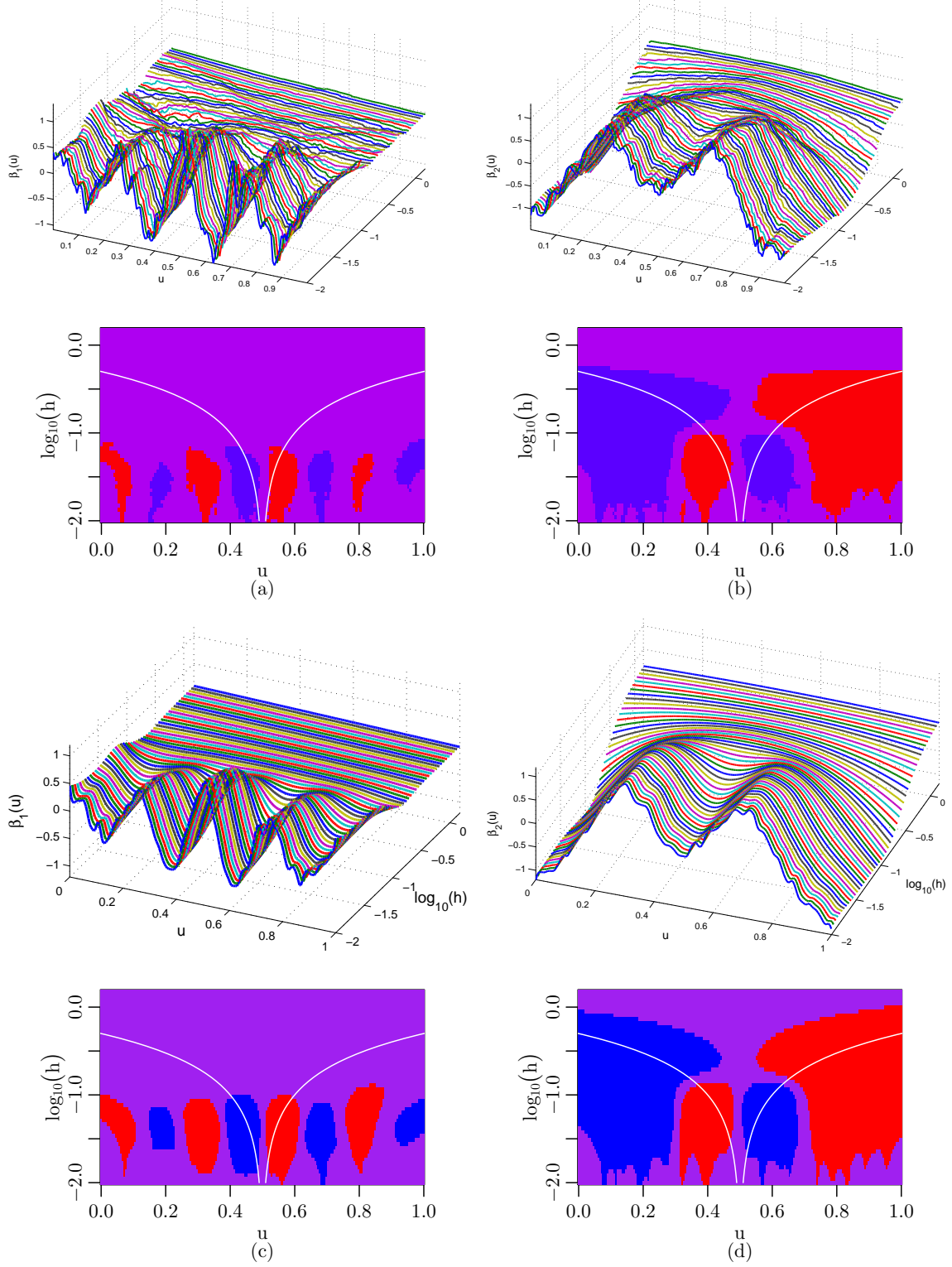


Figure S.3: Model errors drawn from the normal distribution $N(0, 0.5^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3 .

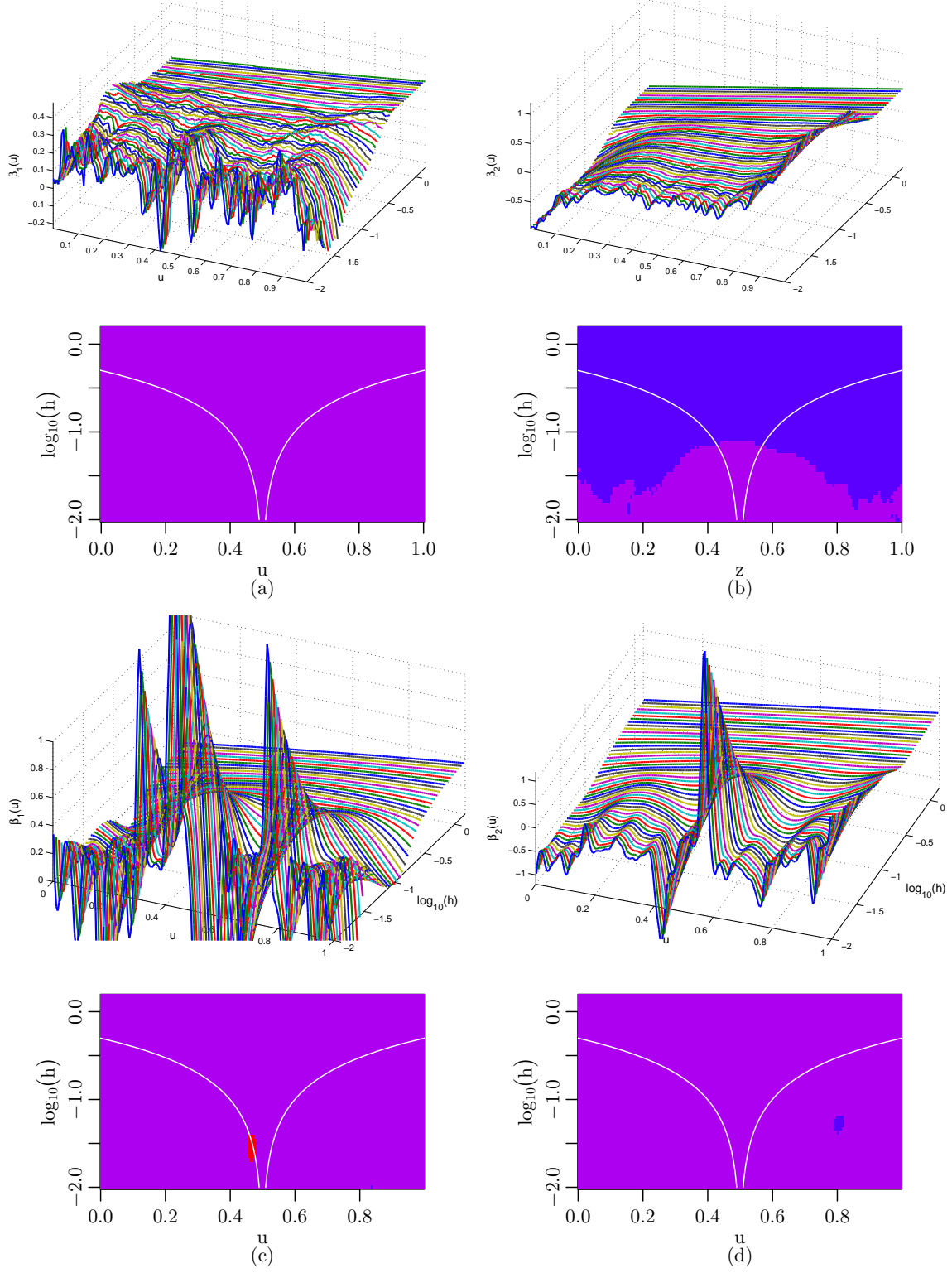


Figure S.4: Model errors drawn from the cauchy distribution $C(0, 0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1 .

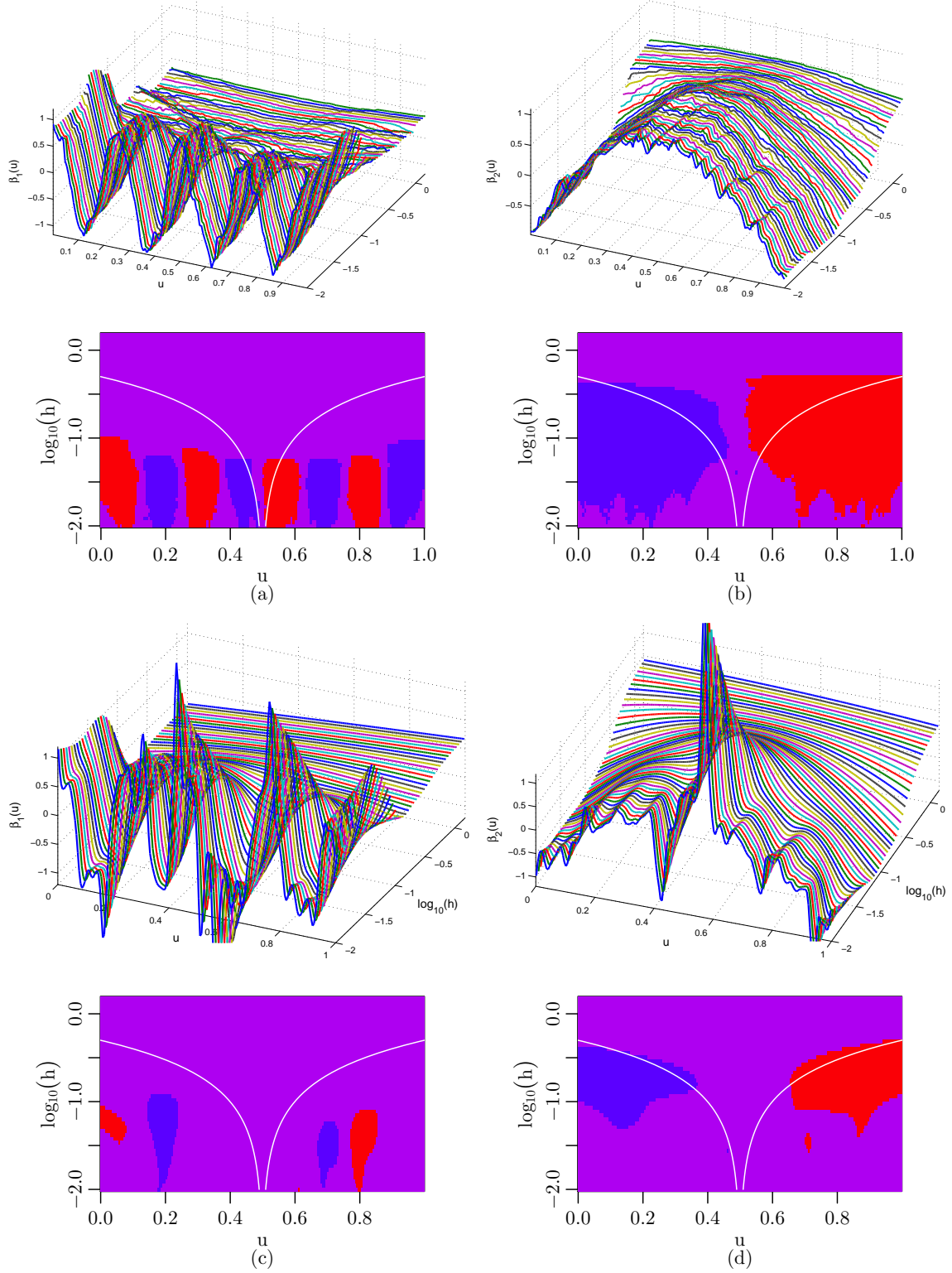


Figure S.5: Model errors drawn from the cauchy distribution $C(0,0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2 .

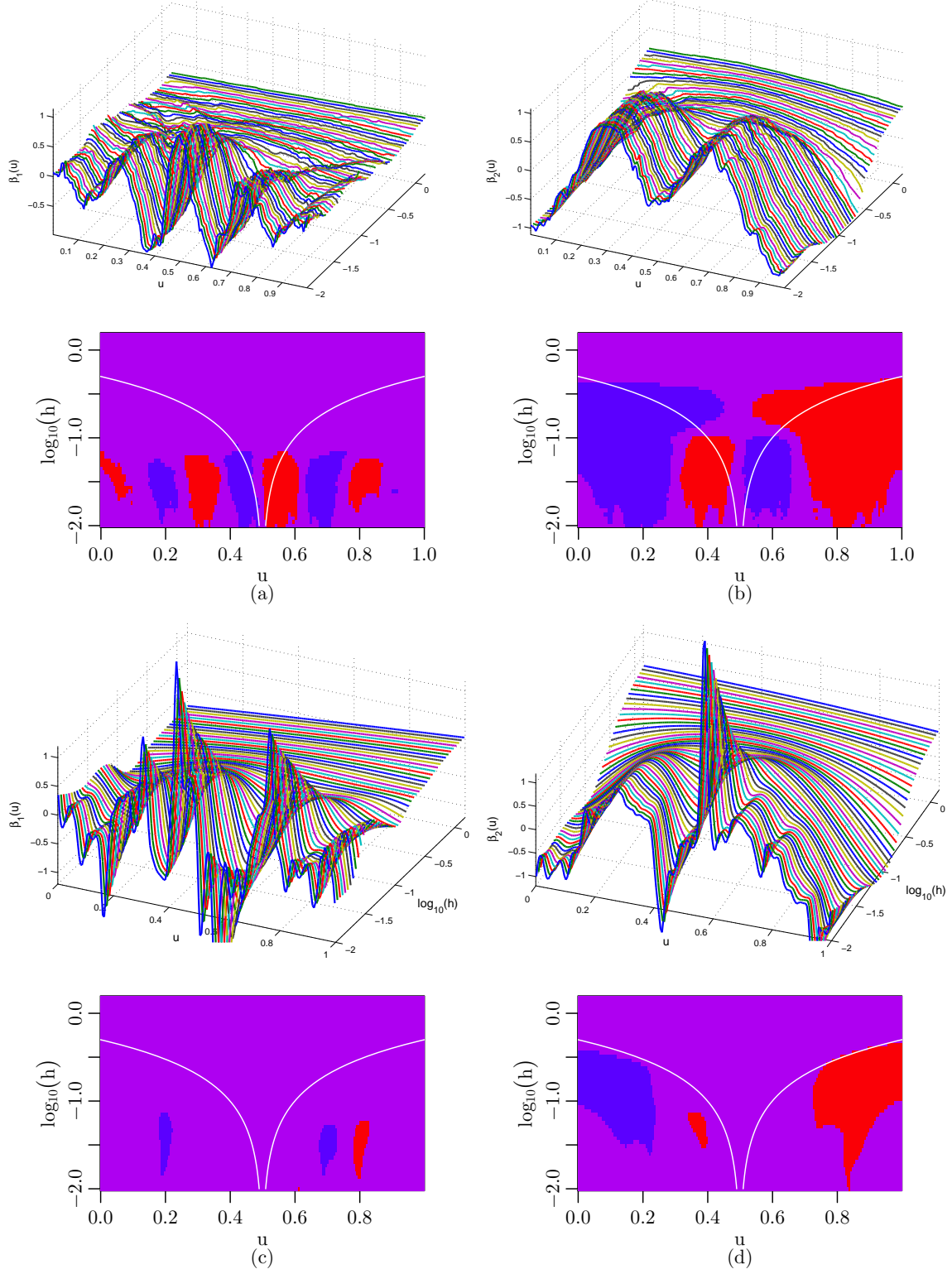


Figure S.6: Model errors drawn from the cauchy distribution $C(0, 0.2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3 .

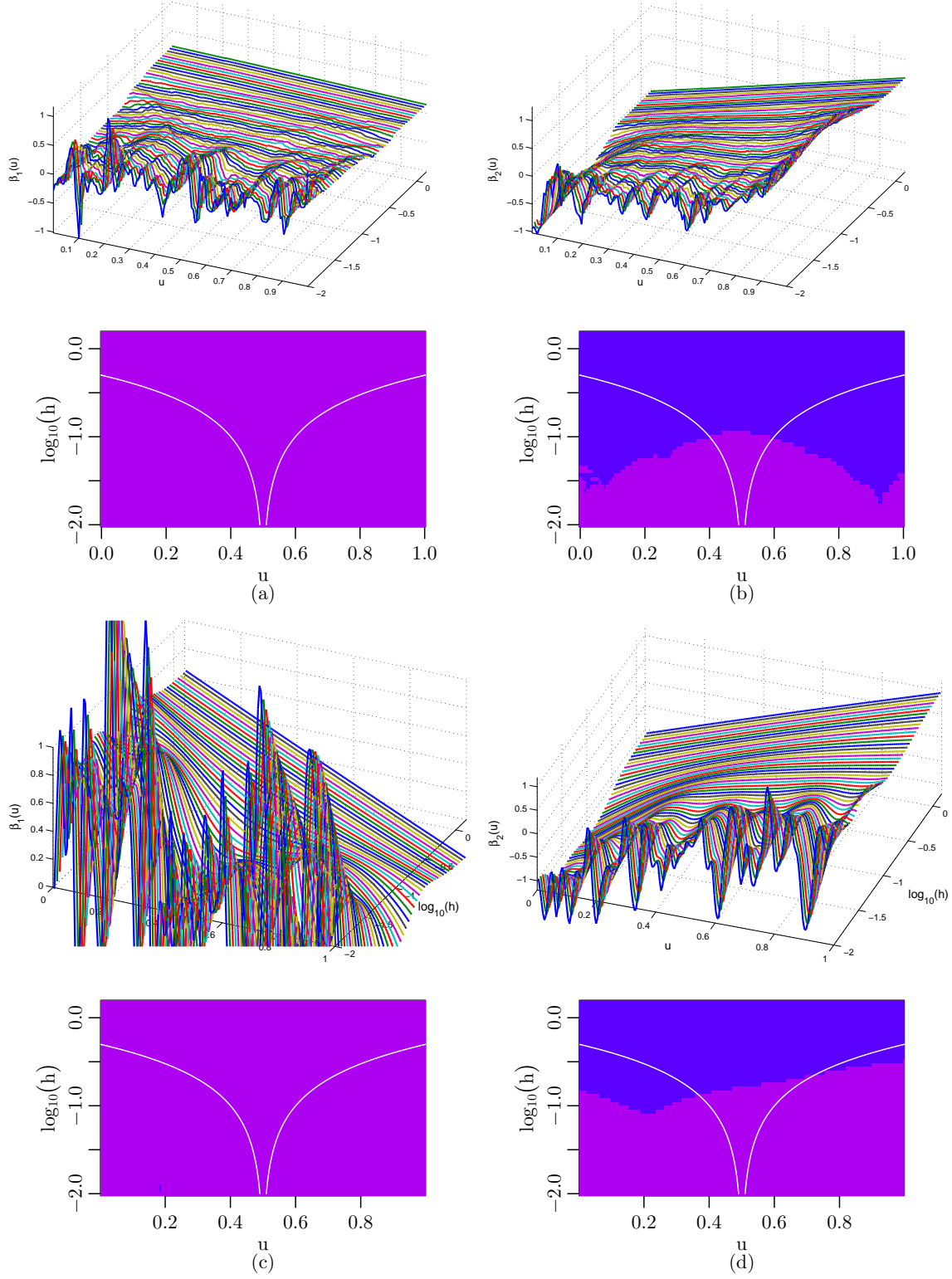


Figure S.7: Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 1, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 1 .

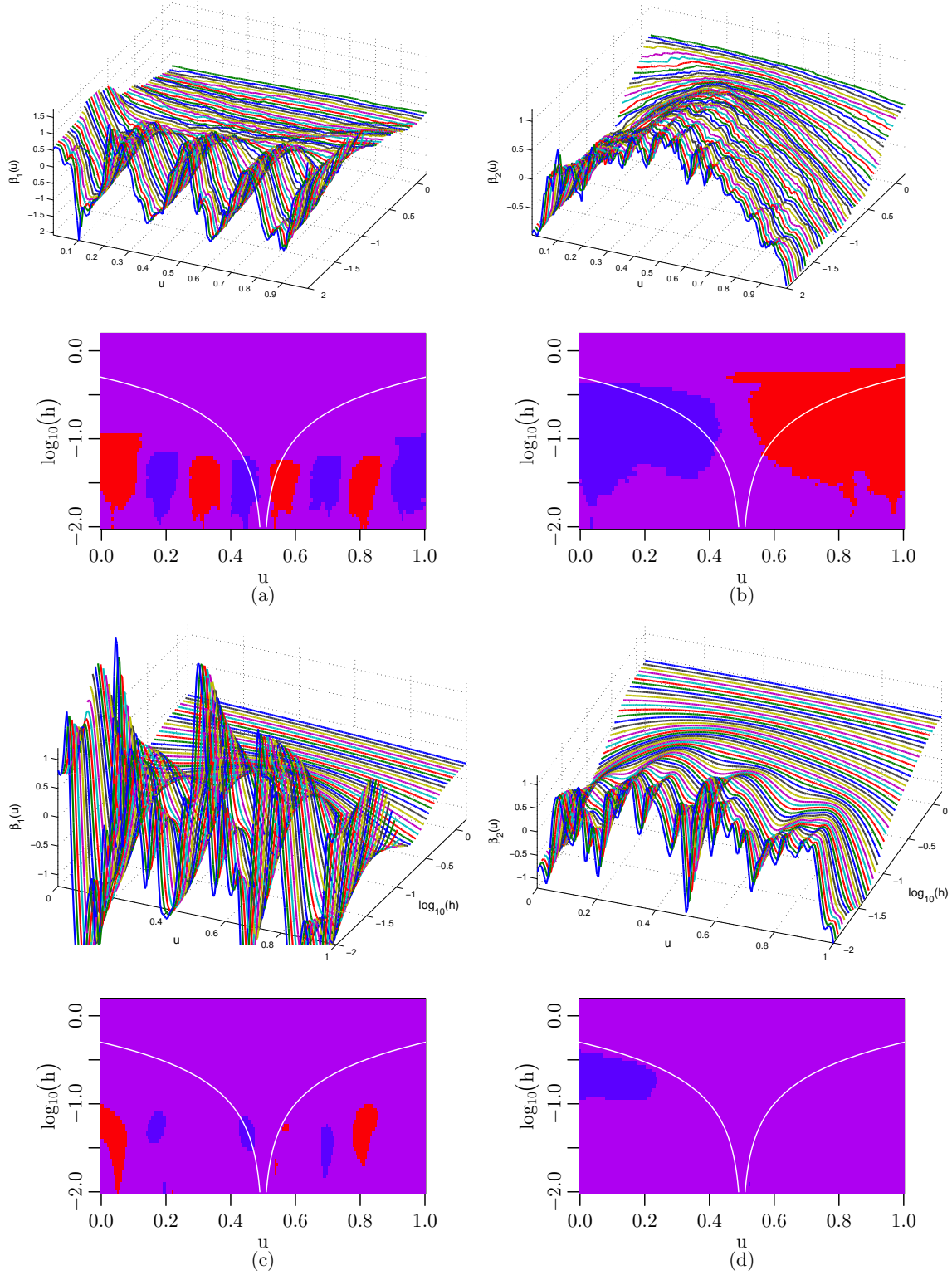


Figure S.8: Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 2, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 2 .

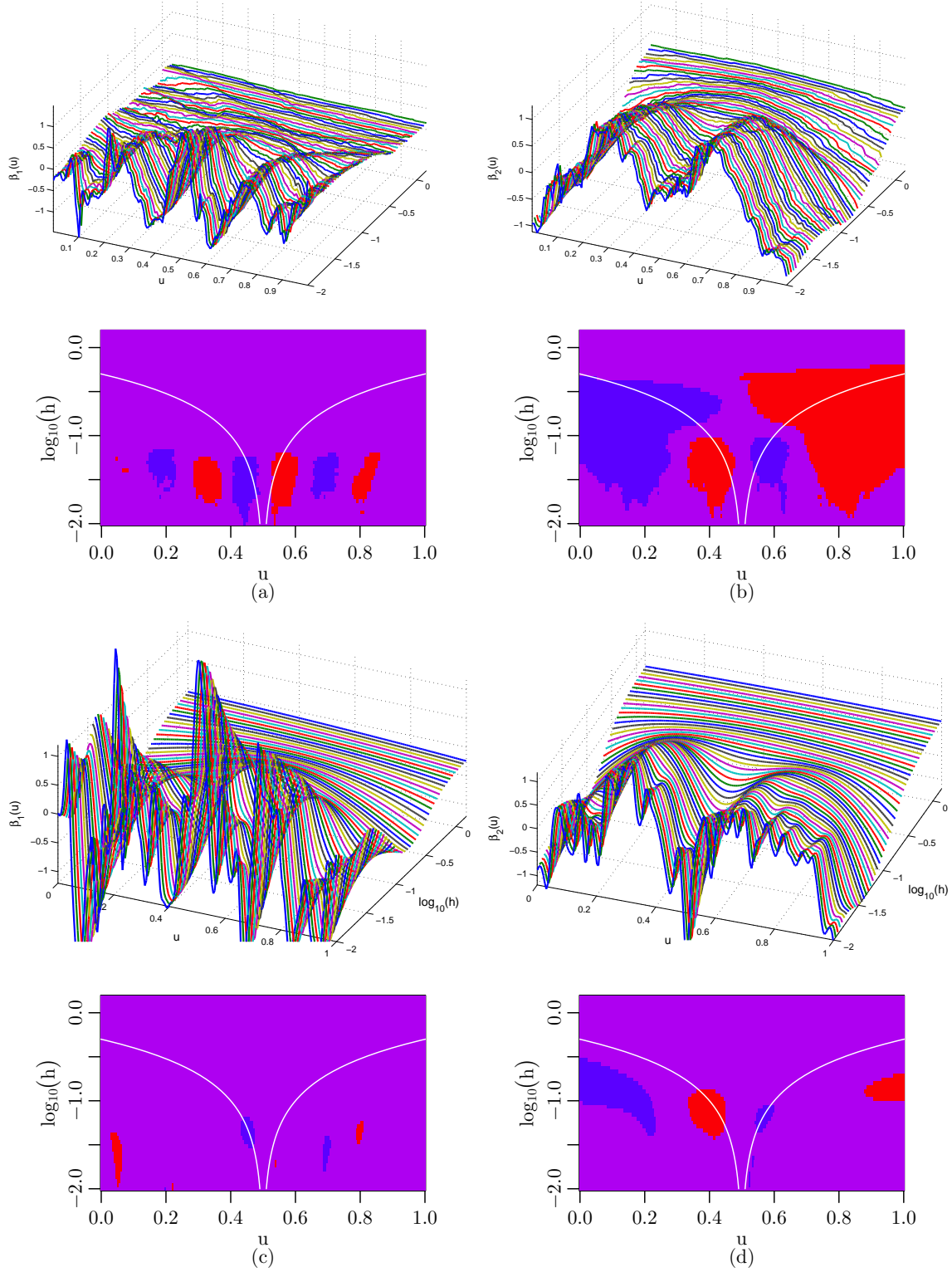


Figure S.9: Model errors drawn from the contaminated normal distribution $0.7N(0, 0.5^2) + 0.3N(0, 16^2)$ in the varying coefficient model, the robust SiZer maps of (a) $\beta_1(u)$ and (b) $\beta_2(u)$ in Group 3, and the local least-square-based SiZer map of (c) $\beta_1(u)$ and (d) $\beta_2(u)$ in Group 3 .