Corrections of Licentiate thesis entitled *"DNS and LES of Turbulent Natural Convection Boundary Layer"*
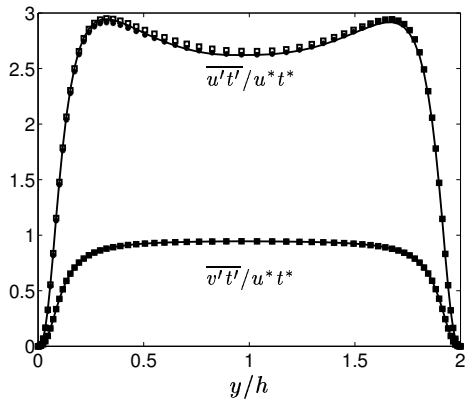
March 24, 2005

- **page 70**;

$$P_{\overline{v_z' v_z'}} = -2\overline{v_r' v_z'}\frac{\partial \overline{v_z'}}{\partial r} + 2g_z\beta\overline{v_z' t'} \quad \text{should be} \quad P_{\overline{v_z' v_z'}} = -2\overline{v_r' v_z'}\frac{\partial \overline{v_z}}{\partial r} + 2g_z\beta\overline{v_z' t'}$$
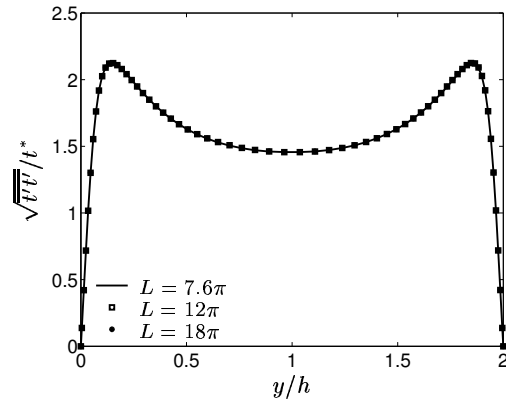
- **page 71, Figure 5.5**;

$$-2\overline{v_r' v_z'}\frac{\partial \overline{v_z'}}{\partial r} \quad \text{should be} \quad -2\overline{v_r' v_z'}\frac{\partial \overline{v_z}}{\partial r}$$

- **page 63, Figure 4.5**;

t^* **in this figure is incorrectly calculated.**

(a) Turbulent heat fluxes.

(b) Temperature fluctuation.

Figure 4.5: Resolved turbulent heat fluxes and temperature fluctuations.

- **page 69, Figure 5.3;**
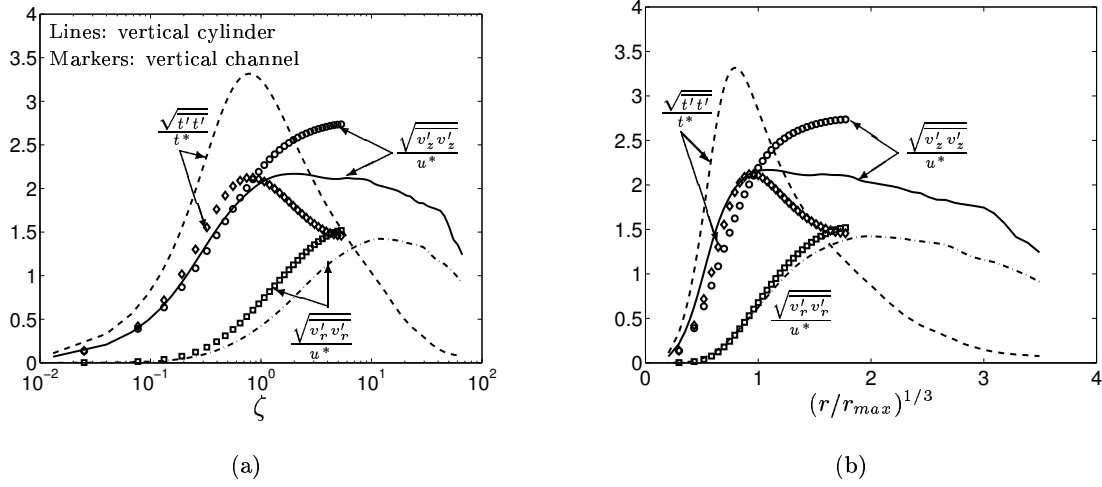
t^* in this figure is incorrectly calculated.

Figure 5.3: Comparison of the normal stresses and temperature fluctuations of the vertical channel ($Gr_h = 9.6 \cdot 10^5$) and the vertical cylinder ($Gr_z = 8.9 \cdot 10^{10}$).

- **page 72, Figure 5.6;**

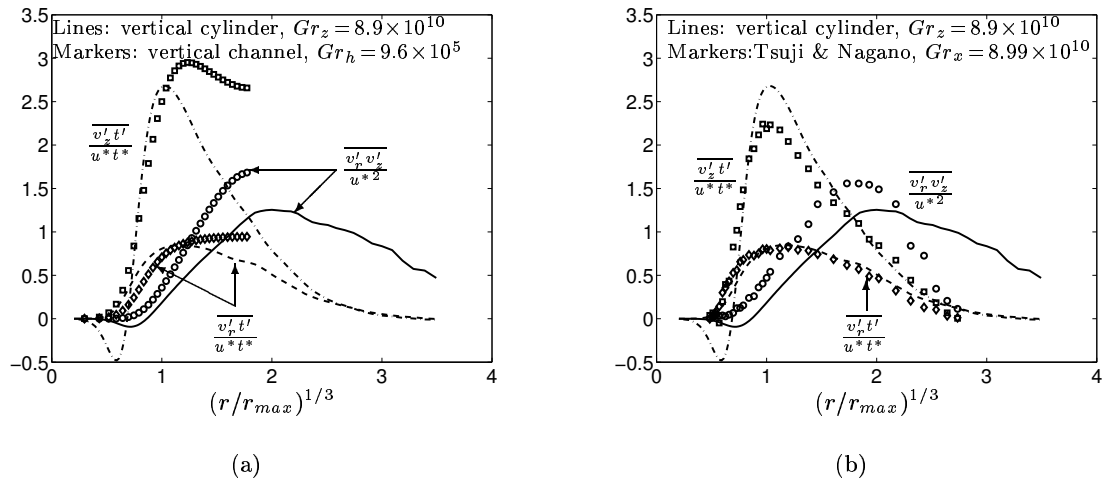t^* in Fig. 5.6(a) is incorrectly calculated.

Figure 5.6: Comparison of the shear stress and turbulent heat fluxes of the three different boundary layers.