

(b) 100*100 Particle cloth and sphere collision effect

Figure 6. Cloth with different particle quantities and sphere collision effect

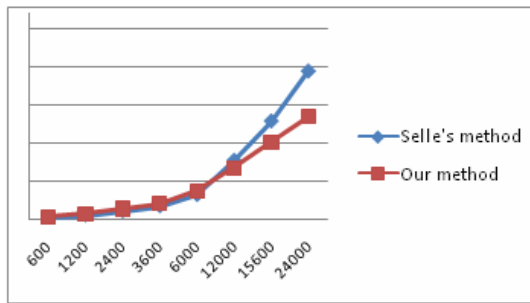


Figure 7. Structural tree algorithm efficiency comparison

VI. CONCLUSION

In this article, we put forward an improved collision handling method, which adopts bottom-top structural tree, and when the structural tree is updated, it can better ensure balance performance, and reduce quantity of node added/deleted. Experimental result indicates that, based on the fabric model used in this article, bottom-up structural method has higher

simulation efficiency than the top-down structural method. Compared with Selle's bottom-up structural method, when the particle quantity of the fabric model is less, the method has lower efficiency than that of Selle's method, but when the particle quantity of the fabric model is larger, the method has better balance performance. It can effectively reduce searching time of collision detection, and has higher simulation efficiency.

ACKNOWLEDGMENT

This work was supported by grant No. 61272346 from NSFC (National Natural Science Foundation of China).

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