

# Numerical Simulation of Deformations of Softwood Sawn Timber

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Exporting of softwood sawn timber requires development of sawmill technology in better wood recovery. Therefore optimization problem of raw material cutting to obtain the maximum volume of high-quality sawn timber is of urgent priority.

In this work we consider the elasticity equations for anisotropic body which describe stress-strain state of timber. For numerical solution we approximate our system using finite elements method.

As the model problem we consider the deformations of the sawn timber under grown stresses depending on cutting patterns of dahurian larch wood, to define their board grade which is linked with warp value. The result of numerical simulation of the 3D problem is presented.

## References

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