



Showcasing research from Professor Yong-Ak Song's
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MechanoBioCAD: a generalized semi-automated
computational tool for mechanobiological studies

[This work introduces MechanoBioCAD (MBC), an efficient design and error estimation tool for mechanobiological studies, demonstrated on a micropillar-based platform. Unlike conventional beam bending models, MBC applies finite element principles to correct force estimation errors from substrate deformation, incorrect load application, and non-linearity. Open-access and compatible with Abaqus Student Edition, MBC democratizes advanced simulation for rational analysis of cell and organism biomechanics.]

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