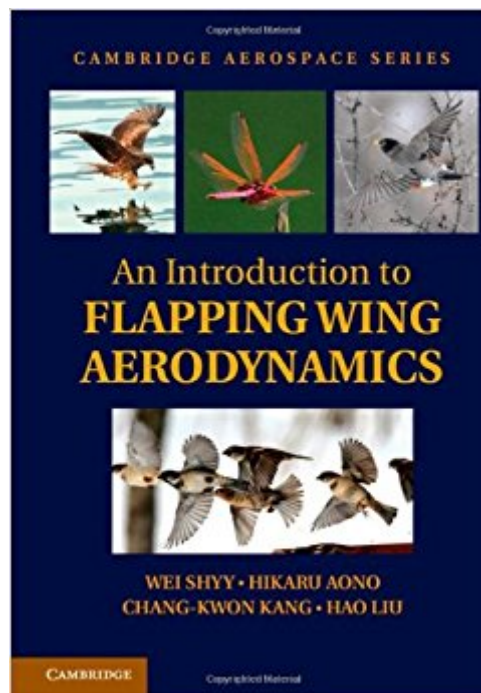




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An Introduction To Flapping Wing Aerodynamics (Cambridge Aerospace Series)



Synopsis

This is an ideal book for graduate students and researchers interested in the aerodynamics, structural dynamics, and flight dynamics of small birds, bats, and insects, as well as of micro air vehicles (MAVs), which present some of the richest problems intersecting science and engineering. The agility and spectacular flight performance of natural flyers, thanks to their flexible, deformable wing structures as well as to outstanding wing, tail, and body coordination, is particularly significant. To design and build MAVs with performance comparable to natural flyers, it is essential that natural flyers' combined flexible structural dynamics and aerodynamics are adequately understood. The primary focus of this book is to address the recent developments in flapping wing aerodynamics. This book extends the work presented in *Aerodynamics of Low Reynolds Number Flyers* (Shyy et al. 2008).

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This book is for anyone interested in the aerodynamics, structural dynamics, and flight dynamics of small birds, bats, and insects, as well as of micro air vehicles (MAVs). The primary focus of this book is on developments in flapping wing aerodynamics, and it extends the work presented in *Aerodynamics of Low Reynolds Number Flyers* (Shyy et al. 2008).

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