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## PREFACE

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EUCASS addresses all topics of interest to aerospace, from research challenges to long-term programmes and administrative problems. It is organized in several permanent Technical Committees (TC). One of them is the Flight Dynamics, Guidance, Navigation, Control (GNC), and Avionics TC. Within the broad EUCASS framework, the specific purpose of the Flight Dynamics, GNC, and Avionics TC is to promote the technology, sciences, and arts of aerospace dynamics, GNC, and avionics and to help those engaged in these pursuits to develop their skills and those of their students and collaborators.

In order to contribute to the dissemination of scientific knowledge and provide a convenient archival reference to the most significant accomplishments, this EUCASS book series on advances in aerospace sciences was started in 2007 on the occasion of the second EUCASS conference held in Brussels.

This tenth volume of the EUCASS book series on advances in aerospace sciences is dedicated to flight dynamics and GNC and includes some of the best papers presented at the 6th European Conference for Aerospace Sciences held in Krakow, Poland, June 29 to July 03, 2015. A collection of the papers accepted for presentation at the conference was selected by the volume editors and later successively edited by an international body of peer reviewers. The current book is the product of this long distillation process.

The volume includes 4 chapters covering traditional aspects in aerospace flight dynamics and GNC as well as the innovative ones:

**Chapter 1** Navigation and Orbit Determination;

**Chapter 2** Guidance and Control;

**Chapter 3** Optimization; and

**Chapter 4** Simulations and Operations.

EUCASS Technical Committee Chair

Max Calabro