Preface to the Second Edition

A major change in the second edition of the book is Chapter 12. The new version includes a solution of the long-standing problem of quantum Gaussian optimizers, which appeared soon after publication of the first edition. This result enables one to explicitly compute the classical capacity for the most usable mathematical models of quantum communication channels in continuous-variables systems, making the whole content of the book more complete.

In Chapters 1–11 several textual amendments were made. Circa thirty new references were added which are strictly relevant to the main content of the monograph. The author is grateful to Maxim Shirokov, whose careful reading and comments contributed substantially to the improvement of the presentation.