

Povzetek

V diplomskem delu je podan uvod v teorijo polgrup linearnih operatorjev, ki je ilustrirana s štirimi standardnimi primeri. To so translacijske polgrupe, Gauss-Weierstrassove polgrupe, Cauchyjeve (ali Poissonove) polgrupe in polgrupe ulomljenih integralov.

V prvem poglavju se ukvarjamo s krepko zveznimi polgrupami (ali C_0 -polgrupami), enakomerno zveznimi polgrupami (ali UC-polgrupami), C_0 -grupami in UC-grupami. Podane so predvsem definicije in k vsaki ustrezen primer, ki smo ga podrobno raziskali.

V drugem poglavju študiramo infinitezimalni generator C_0 -polgrupe, mimogrede pa si ogledamo še infinitezimalni generator UC-polgrupe, C_0 -grupe in UC-grupe.

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Key words: group, infinitesimal generator, mollifier, semigroup

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