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V nalogi obravnavamo nekaj metod za numerično reševanje navadnih diferencialnih enačb z uporabo zlepkov. Najprej se lotimo metode Loscalzo - Talbot, pri kateri uporabljamo zlepke stopnje $m \geqslant 2$ iz $C^{m-1}[a,b]$. Ker zaradi strogih zveznostnih pogojev zaidemo v težave v zvezi s stabilnostjo metode pri uporabi zlepkov stopenj več kot tri, v naslednjih poglavjih te pogoje sprostimo. Tako obravnavamo Callenderjevo metodo, kjer uporabljamo zlepke stopenj $m \geqslant 2$ iz $C^1[a,b]$ in metodo Hermite - Loscalzo z zlepki sodih stopenj $m = 2q$ iz $C^q[a,b]$, ki je tipa prediktor - korektor in temelji na Hermitovih dvotočkovnih kvadraturnih formulah. Zanje dokažemo A - stabilnost in to, da so najboljše kvadraturne formule svojega tipa v Sardovem smislu. Naloga vsebuje tudi računalniške programe za reševanje sistemov navadnih diferencialnih enačb po metodah Loscalzo - Talbot in Hermite - Loscalzo.

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