\documentclass[12pt]{article}

\usepackage{latexsym, amsmath, amsfonts, amscd, amssymb, verbatim, amsxtra,amsthm}

\usepackage{pgf,tikz,pgfplots}

\usepackage{tkz-euclide}

\usepackage{graphicx}

\usepackage{color}

\usepackage{hyperref}

\usepackage[all]{xy}

\usepackage{mathrsfs}

\usepackage{tikz,tkz-tab}

\usepackage{parallel}

\usepackage{array}

\usepackage{xcolor}

\usepackage{verbatim}

\usepackage{tikz-3dplot}

\usepackage{comment}

\usepackage{tikz-cd}

\usepackage{enumerate}

\usepackage{subcaption}

%=========%========

\usetikzlibrary{matrix}

\usetikzlibrary{calc,intersections}

\usetikzlibrary{patterns} %dung cho cai hinh 1000

\pgfplotsset{compat=1.15}

\usetikzlibrary{arrows}

\pagestyle{empty}

\DeclareGraphicsExtensions{.pdf,.png,.jpg}

\setlength{\textwidth}{6in} \setlength{\topmargin}{-0.2in}

\setlength{\textheight}{9.0in} \setlength{\oddsidemargin}{0.3in}

\renewcommand{\baselinestretch}{1.2}

 \theoremstyle{plain}

 \newtheorem{theorem}{Theorem}[section]

 \newcommand{\dl}{\begin{theorem}}

 \newcommand{\hdl}{\end{theorem}}

 \newtheorem{pro}[theorem]{Proposition}

 \newcommand{\md}{\begin{pro}}

 \newcommand{\hmd}{\end{pro}}

 \newtheorem{lem}[theorem]{Lemma}

 \newcommand{\bd}{\begin{lem}}

 \newcommand{\hbd}{\end{lem}}

 \newtheorem{co}[theorem]{Corollary}

 \newcommand{\hq}{\begin{co}}

 \newcommand{\hhq}{\end{co}}

 \newtheorem{dinhnghia}[theorem]{Definition}

 \newcommand{\dn}{\begin{dinhnghia}}

 \newcommand{\hdn}{\end{dinhnghia}}

 \newtheorem{tinhchat}[theorem]{Property}

 \newcommand{\tc}{\begin{tinhchat}}

 \newcommand{\htc}{\end{tinhchat}}

 \newtheorem{vidu}[theorem]{Example}

 \newcommand{\vd}{\begin{vidu}}

 \newcommand{\hvd}{\end{vidu}}

 \newtheorem{nhanxet}[theorem]{Remark}

 \newcommand{\nx}{\begin{nhanxet}}

 \newcommand{\hnx}{\end{nhanxet}}

 \newtheorem{chuy}[theorem]{Notation}

 \newcommand{\cy}{\begin{chuy}}

\newcommand{\hcy}{\end{chuy}}

\numberwithin{equation}{section}

\renewcommand{\theequation}{\thesection.\arabic{equation}}

\normalsize

\setcounter{equation}{0}

\begin{document}

 % \title{ \bf Geometric Interpretability for Joint Numerical Ranges and its application}

 \title{ \bf Separation Properties of Quadratic Functions}

 \author{Huu-Quang Nguyen\footnote{Department of Mathematics, Vinh

 University; Nghe An, Vietnam, email:

 quangdhv@gmail.com.},\ \, XXX\footnote{Department of Mathematics, ZZZ; email: zzz@yyy}}

 \maketitle

 \makeatletter \renewcommand\@biblabel[1]{#1.}

 \makeatother

 \medskip

\begin{quote}

\small{\bf Abstract} We .... \;

\medskip

 \vspace\*{0,05in} {\bf Key words} Convexity, Numerical Range, Quadratic Programming, Quadratic Mapping, Separation Property.

 {\bf Mathematics Subject Classification (2010).} 90C20, 90C22, 90C26.

\end{quote}

\section{Introduction} \label{sec:Intro}

\begin{theorem}\label{}

The equation $x^2+2x+1=-1$ has no solution.

\end{theorem}

\md\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hmd

\bd\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hbd

\hq\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hhq

\cy\label{} \rm

The equation $x^2+2x+1=-1$ has no solution.

\hcy

\vd\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hvd

\dn\label{}\rm

The function $f(x)$ is said to be continuous at $x\_0$ if ...

\hdn

\nx\label{} \rm

The equation $x^2+2x+1=-1$ has no solution.

\hnx

\section{Main results}

\begin{theorem}\label{}

 The equation $x^2+2x+1=-1$ has no solution.

\end{theorem}

\md\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hmd

\bd\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hbd

\hq\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hhq

\cy\label{} \rm

The equation $x^2+2x+1=-1$ has no solution.

\hcy

\vd\label{}

The equation $x^2+2x+1=-1$ has no solution.

\hvd

\dn\label{}\rm

The function $f(x)$ is said to be continuous at $x\_0$ if ...

\hdn

\nx\label{} \rm

The equation $x^2+2x+1=-1$ has no solution.

\hnx

\bibliographystyle{amsplain}

\begin{thebibliography}{10}

\bibitem{Calabi82}

Calabi, E. (1982). {\it Linear systems of real quadratic forms. II.} Proceedings of the American Mathematical Society, 84(3), 331--334.

\end{thebibliography}

\end{document}