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\ProvidesPackage{style}
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%% MIKHAIL KLASSEN - RESEARCH DIARY HEADER %%%%%%%%%
%
%% @author: Mikhail Klassen                %%
%% @contact: mikhail.klassen@gmail.com      %%
%% @author: Sarah Mount                    %%
%% @contact: mount.sarah@gmail.com          %%
%% @revised: 27 / May / 2014                %%
%% @license: Creative Commons Share Alike 3.0 %%
%%      http://creativecommons.org/licenses/by-sa/3.0/ %%
%%                                           %%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%-----
Packages-----%
\usepackage{tkz-euclide}                %Tkz-Euclide diagrams
\usepackage{amsmath,amsthm,amssymb,cancel,amsfonts}      %Math packages
\usepackage{mathrsfs}                  %Maths symbols
\usepackage{float}                      %Float for figures
\usepackage{siunitx}                   %Units
\usepackage{cleveref}                  %Enhanced cross-referencing
\usepackage[utf8]{inputenc}            %Input encoding
\usepackage[table]{xcolor}              %Better control over table colors
\usepackage{graphicx}                  %Include graphics
\usepackage{subcaption}                %Subfigures
\usepackage{booktabs}                  %Better horizontal rules in tables
\usepackage{xspace}                    %Better space handling
\usepackage{microtype}                  %Improves character and word spacing
\usepackage[many]{tcolorbox}            %Boxes for headings or text
\usepackage{lmodern}                   %Better font support
\usepackage{titlesec}                  %Customize chapter and section titles
\usepackage{epigraph}                  %Epigraphs
\usepackage{etoolbox}                  %Programming tools for LaTeX
\usepackage{natbib}                    %Bibliography management
\usepackage{marginfix}                  %Fix margin figure placement
\usepackage{libertine}                  %Use the Linux Libertine font
\usepackage{fancyhdr}                   %Customize headers and footers
\usepackage{parskip}                   %Zero paragraph indent, spacing
\usepackage{lastpage}
\usepackage{venndiagram}
\usepackage{lmodern}
\usepackage{mathtools}
\usepackage{pdfpages}
\usepackage{pdfpages}
\usepackage{bbding}
\usepackage{tikz-network}
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%\usepackage[latin1]{inputenc}
\usepackage{amsmath}
\usepackage{amsfonts}
\usepackage{amssymb}
\usepackage{bigdelim}
\usepackage{booktabs}
\usepackage{epsfig}
%\usepackage{extract}
\usepackage{fancyhdr}
\usepackage{framed}
\usepackage{graphicx}
\graphicspath{ {figures/} }
\usepackage{multibib}

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\usepackage{multirow}
\usepackage{pdfscape}
\usepackage[usenames,dvipsnames]{pstricks}
\usepackage{textcomp}
\usepackage{url}
\usepackage{wrapfig}
\usetikzlibrary{shapes.geometric}
% Define a custom color set.
\usepackage{xcolor}
\definecolor{tenPercentGrey}{gray}{0.9}

% COLORS (Tango) Mostly by Philip Bunge
% http://pbunge.crimson.ch/
\definecolor{White}{gray}{0.9}
\definecolor{Black}{gray}{0.0}
\definecolor{LightButter}{rgb}{0.98,0.91,0.31}
\definecolor{LightOrange}{rgb}{0.98,0.68,0.24}
\definecolor{LightChocolate}{rgb}{0.91,0.72,0.43}
\definecolor{LightChameleon}{rgb}{0.54,0.88,0.20}
\definecolor{LightSkyBlue}{rgb}{0.45,0.62,0.81}
\definecolor{LightPlum}{rgb}{0.68,0.50,0.66}
\definecolor{LightScarletRed}{rgb}{0.93,0.16,0.16}
\definecolor{Butter}{rgb}{0.93,0.86,0.25}
\definecolor{Orange}{rgb}{0.96,0.47,0.00}
\definecolor{Chocolate}{rgb}{0.75,0.49,0.07}
\definecolor{Chameleon}{rgb}{0.45,0.82,0.09}
\definecolor{SkyBlue}{rgb}{0.20,0.39,0.64}
\definecolor{Plum}{rgb}{0.46,0.31,0.48}
\definecolor{ScarletRed}{rgb}{0.80,0.00,0.00}
\definecolor{DarkButter}{rgb}{0.77,0.62,0.00}
\definecolor{DarkOrange}{rgb}{0.80,0.36,0.00}
\definecolor{DarkChocolate}{rgb}{0.56,0.35,0.01}
\definecolor{DarkChameleon}{rgb}{0.30,0.60,0.02}
\definecolor{DarkSkyBlue}{rgb}{0.12,0.29,0.53}
\definecolor{DarkPlum}{rgb}{0.36,0.21,0.40}
\definecolor{DarkScarletRed}{rgb}{0.64,0.00,0.00}
\definecolor{Aluminium1}{rgb}{0.93,0.93,0.92}
\definecolor{Aluminium2}{rgb}{0.82,0.84,0.81}
\definecolor{Aluminium3}{rgb}{0.73,0.74,0.71}
\definecolor{Aluminium4}{rgb}{0.53,0.54,0.52}
\definecolor{Aluminium5}{rgb}{0.33,0.34,0.32}
\definecolor{Aluminium6}{rgb}{0.18,0.20,0.21}

%%% LISTINGS
\usepackage{listings}
\lstset{
  backgroundcolor=\color{tenPercentGrey}, %
  basicstyle=\color{Black}\ttfamily, %
  keywordstyle=[1]\color{DarkSkyBlue}, %
  keywordstyle=[2]\color{DarkScarletRed}, %
  keywordstyle=[3]\bfseries, %
  keywordstyle=[4]\color{DarkPlum}, %
  keywordstyle=[5]\color{SkyBlue}, %
  commentstyle=\color{Aluminium4}, %
  stringstyle=\color{Chocolate}, %
  identifierstyle=\color{Black}, %
  emphstyle=\color{Black}, %
  numbers=left, %
  stepnumber=1, %
  frame=tb, %

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captionpos=b, %
lineskip=\smallskipamount{}, %
aboveskip=\bigskipamount{}, %
belowskip=\medskipamount{}, %
commentstyle=\itshape\small{}, %
tabsize=2, %
breaklines=false, %
rulecolor=\color{Black!30}, %
showspaces=false, %
showstringspaces=false, %
showtabs=false, %
} % chktex 6

%%%%%%%%%%%%% ASTRONOMY %%%%%%%%%%%%%%
% Code from Research Diary Template by Mikhail Klassen
\newcommand{\Msun}{M_\odot}
\newcommand{\Lsun}{L_\odot}
\newcommand{\Rsun}{R_\odot}
\newcommand{\Mearth}{M_\oplus}
\newcommand{\Learth}{L_\oplus}
\newcommand{\Rearth}{R_\oplus}

%%%%%%%%%%%%% MATHEMATICS %%%%%%%%%%%%%%
% Code from Research Diary Template by Mikhail Klassen
\newcommand{\grad}{\nabla}
\newcommand{\be}{\begin{equation}}
\newcommand{\ee}{\end{equation}}
\newcommand{\bea}{\begin{eqnarray}}
\newcommand{\eea}{\end{eqnarray}}
\newcommand{\eqnarr}{\begin{eqnarray}}
\newcommand{\eqnend}{\end{eqnarray}}
\newcommand{\deriv}[2]{\frac{d \#1}{d \#2}}
\newcommand{\bigO}{\mathcal{O}}
\DeclareMathSymbol{\umu}{\mathalpha}{operators}{0}

%%%%%%%%%%%%% HEADER / FOOTER %%%%%%%%%%%%%%
\pagestyle{fancy}
\setlength{\parindent}{0in}
\setlength{\parskip}{0.1in}
\setlength{\headheight}{15pt}

%\lhead{\textsc{\userName}}
%\chead{\textsc{Lab Notes}}
%\rhead{\workingDate}
%\lfoot{\includegraphics[width=0.1\textwidth]{logo.png}}
%\cfoot{~~\textit{Last modified: \today}}
%\rfoot{\textsc{thepage}}

%%%%%%%%%%%%% NEW ENVIRONMENTS %%%%%%%%%%%%%%
\newenvironment{projects}%
{\section*{Projects \& Collaborations}}%
{\vspace{2mm}\hrule\hspace{\stretch{1}}}%

\newenvironment{maybe}%
{\section*{Someday / Maybe}}%
{\vspace{2mm}\hrule\hspace{\stretch{1}}}%

%%%%%%%%%%%%% NEW COMMANDS %%%%%%%%%%%%%%
\newcommand{\univlogo}{%
\noindent

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\begin{wrapfigure}{r}{0.3\textwidth}
\vspace{-33pt}
\begin{center}
\includegraphics[width=0.3\textwidth]{logo.png}
\end{center}
\vspace{-105pt}
\end{wrapfigure}

\newcommand{\newday}[1]{%
\section*{#1}%
$}$
%%%%%%%%%%
% Define custom command for TMA number
\newcommand{\tma}[1]{
\fancyhead[L]{Paul Allen} % Left header (name)
\fancyhead[C]{Y362220X} % Center header (student number)
\fancyhead[R]{MST124 TMA:#1} % Right header (course and TMA number)
\fancyfoot[C]{Page \thepage \hspace{1pt} of \pageref{LastPage}}
}%

% Set up counters for questions and parts

\newcounter{exam_question}
\renewcommand{\theexam_question}{\arabic{exam_question}} % or roman, alph, etc.
\newcounter{question}
\newcounter{qpart}[question]
\newcounter{qsubpart}[qpart]
\renewcommand{\thequestion}{\arabic{question}}
\renewcommand{\theqpart}{\alph{qpart}} % parts as (a), (b), ...
\renewcommand{\theqsubpart}{\roman{qsubpart}} % subparts as (i), (ii), ...

% Define the question environment with tufte-friendly spacing
\newenvironment{question}[1][0]{%
\ifthenelse{#1>0}{\setcounter{question}{#1-1}}{\relax}%
\stepcounter{question}
\noindent\textbf{Question \thequestion:}\quad
\smallskip % instead of \newline \newline
}{
\par \medskip % Tufte-friendly spacing
\newpage % Remove the forced page break
}
% Define the question environment with tufte-friendly spacing
\usepackage{ifthen} % Add this line to include the ifthen package

\newenvironment{exam_question}[1][0]{%
\ifthenelse{#1>0}{\setcounter{exam_question}{#1-1}}{\relax}%
\stepcounter{exam_question}
\noindent\textbf{Question \theexam_question:}\quad
\smallskip
}{
\par \medskip
}

% Define part and subpart commands
\newcommand{\qpart}[1][0]{%
\ifthenelse{#1>0}{\setcounter{qpart}{#1-1}}{\relax}%
\stepcounter{qpart}%
\noindent\textbf{\theqpart}}\newline % Creates space for answering

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}

\newcommand{\qsubpart}[1][0]{%
  \ifthenelse{#1>0}{\setcounter{qsubpart}{#1-1}}{\relax}%
  \stepcounter{qsubpart}%
  \noindent\textbf{\theqsubpart.}\newline % Creates space for answering
}

% Define the custom environment
\newenvironment{eqn}{%
\begin{flalign*}
}{%
\end{flalign*}
}

\usetikzlibrary{arrows, calc, intersections, decorations.pathmorphing}
%%%%%%%%%%
%%%%%%%%%%
\tikzset{
  arrowMe/.style args={#1}{postaction=decorate,
    decoration={markings, mark=at position .5 with {\arrow[thick]{#1}}}
}

\usepackage{pgfplots}
\usepgfplotslibrary{units} % optional, for improved handling of units
\pgfplotsset{compat=1.18} % ensure compatibility

\newcommand{\rb}[1]{%
  \left(#1\right)%
}

\newcommand{\sqb}[1]{%
  \left[#1\right]%
}

% Define a new command for working notes that respects math mode
\newcommand{\eqns}[1][\{#1\} \[8pt]]

\newcommand{\stext}{\shortintertext}

\newcommand{\snote}[1]{& \& \textit{\small\llap{#1}}}
\newcommand{\lnote}[1]{& \& \notag & \& \& \textit{\small\llap{#1}}}
\newcommand{\shortspace}{\vspace{0.5em}} % Adjust the spacing as needed

\DeclareMathOperator{\taninv}{\tan^{-1}}
\DeclareMathOperator{\cosinv}{\cos^{-1}}
\DeclareMathOperator{\sininv}{\sin^{-1}}

\newcommand*\dif{\mathop{}\!\!\textnormal{\slshape d}}

\tikzset{->/.style={decoration={
  markings,
  mark=at position #1 with {\arrow{>}}},postaction={decorate}}}

%\sisetup{per-mode=symbol} % Optional: Sets the "per" as a division symbol, e.g., "/"

% Define milliarsecond as a unit

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\DeclareSIUnit{\mas}{\textit{mas}}
\DeclareSIUnit\year{\textit{yr}}
\DeclareSIUnit{\parsec}{pc}
\DeclareSIUnit{\parallax}{\textit{parallax}}
\DeclareSIUnit{\phot}{\textit{phot}\textunderscore g\textunderscore mean\textunderscore mag}
\DeclareSIUnit{\mag}{mag}
\DeclareSIUnit{\bprp}{bp\textunderscore rp}
\DeclareSIUnit{\pmra}{pmra}
\DeclareSIUnit{\pmdec}{pmdec}
\DeclareSIUnit{\arcsec}{\textit{arcsec}}
\DeclareSIUnit{\varpi}{\varpi}
\DeclareSIUnit{\Kelvin}{K}
\DeclareSIUnit{\angstrom}{\textup{AA}}
\DeclareSIUnit{\degree}{\textit{deg}}
\DeclareSIUnit{\rad}{\textit{radians}}
\DeclareSIUnit{\Rs}{R_\odot}
\DeclareSIUnit{\Ms}{M_\odot}

\newcommand*\circled[1]{\tikz[baseline=(char.base)]{
  \node[shape=circle,draw,inner sep=2pt] (char) {\#1};}}

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