## Mid-Infrared Variability from the Spitzer Deep Wide-Field Survey

Szymon Kozłowski<sup>1</sup>, Christopher S. Kochanek<sup>1,2</sup>, Daniel Stern<sup>3</sup>, Matthew L. N. Ashby<sup>4</sup>, Roberto J. Assef<sup>1</sup>, J. J. Bock<sup>5</sup>, C. Borys<sup>5</sup>, K. Brand<sup>6</sup>, M. Brodwin<sup>4,21</sup>, M. J. I. Brown<sup>7</sup>, R. Cool<sup>8</sup>, A. Cooray<sup>9</sup>, S. Croft<sup>10</sup>, Arjun Dey<sup>11</sup>, P. R. Eisenhardt<sup>3</sup>, A. Gonzalez<sup>12</sup>, V. Gorjian<sup>3</sup>, R. Griffith<sup>3</sup>, N. Grogin<sup>6</sup>, R. Ivison<sup>13,14</sup>, J. Jacob<sup>3</sup>, B. T. Jannuzi<sup>11</sup>, A. Mainzer<sup>3</sup>, L. Moustakas<sup>3</sup>, H. Röttgering<sup>15</sup>, N. Seymour<sup>16</sup>, H. A. Smith<sup>4</sup>, S. A. Stanford<sup>17</sup>, J. R. Stauffer<sup>18</sup>, I. S. Sullivan<sup>6</sup>, W. van Breugel<sup>19</sup>, S. P. Willner<sup>4</sup>, and E. L. Wright<sup>20</sup>

<sup>&</sup>lt;sup>1</sup>Department of Astronomy, The Ohio State University, 140 West 18th Avenue, Columbus, OH 43210, USA; e-mail: simkoz@astronomy.ohio-state.edu

 $<sup>^2{\</sup>rm The~Center}$  for Cosmology and Astroparticle Physics, The Ohio State University, Columbus, OH 43210, USA

 $<sup>^3 \</sup>rm Jet$  Propulsion Laboratory, California Institute of Technology, 4800 Oak Drive, Pasadena, CA 91109, USA

<sup>&</sup>lt;sup>4</sup>Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, USA

 $<sup>^5{\</sup>rm California}$ Institute of Technology, Pasadena, CA 91125, USA

<sup>&</sup>lt;sup>6</sup>Space Telescope Science Institute, Baltimore, MD 21218, USA

<sup>&</sup>lt;sup>7</sup>School of Physics, Monash University, Clayton 3800, Victoria, Australia

<sup>&</sup>lt;sup>8</sup>Department of Astrophysical Sciences, Princeton University, Princeton, NJ 08544, USA

<sup>&</sup>lt;sup>9</sup>University of California, Irvine, CA 92697,USA

<sup>&</sup>lt;sup>10</sup>University of California, Berkeley, CA 94720,USA

<sup>&</sup>lt;sup>11</sup>National Optical Astronomical Observatory, 950 North Cherry Avenue, Tucson, AZ 85719, USA

 $<sup>^{12}</sup>$ Department of Astronomy, University of Florida, Gainesville, FL 32611, USA

<sup>&</sup>lt;sup>13</sup>UK Astronomy Technology Centre, Royal Observatory, Blackford Hill, Edinburgh, EH9 3HJ, UK

<sup>&</sup>lt;sup>14</sup>Institute of Astronomy, University of Edinburgh, Blackford Hill, Edinburgh, EH9 3HJ, UK

<sup>&</sup>lt;sup>15</sup>Leiden Observatory, Leiden University, PO Box 9513, 2300 RA Leiden, The Netherlands

<sup>&</sup>lt;sup>16</sup>Mullard Space Science Laboratory, University College London, UK

<sup>&</sup>lt;sup>17</sup>University of California, Davis, CA 95616, USA

 $<sup>^{18}\</sup>mathrm{Spitzer}$ Science Center, California Institute of Technology, Pasadena, CA 91125, USA

<sup>&</sup>lt;sup>19</sup>University of California, Merced, CA 95344, USA

<sup>&</sup>lt;sup>20</sup>University of California, Los Angeles, CA 90095-1562, USA

<sup>&</sup>lt;sup>21</sup>W. M. Keck Postdoctoral Fellow at the Harvard-Smithsonian Center for Astrophysics