

Nicolas Flagey, PhD

CONTACT INFORMATION

Jet Propulsion Laboratory
4800 Oak Grove Drive
MS 169-327
PASADENA, CA 91109

Voice: (818) 393-1497
Fax: (818) 354-1004
E-mail: nflagey@jpl.nasa.gov

RESEARCH INTERESTS

Properties and evolution of the dust and gas in the interstellar medium
Circumstellar shells of evolved objects
Infrared observations, data reduction and analysis

POSITION

CalTech Post-doctoral Scholar at JPL
Jet Propulsion Laboratory, Pasadena, CA
Supervisor: Paul Goldsmith

October, 2010 - Present

CalTech Post-doctoral Scholar

January, 2008 - October, 2010

Spitzer Science Center, CalTech, Pasadena, CA
Supervisors: Alberto Noriega-Crespo and Sean Carey (MIPSGAL Science Team)

FIRST AUTHOR REFEREED PUBLICATIONS

- **‘Water absorption in Galactic translucent clouds: conditions and history of the gas derived from Herschel/HIFI PRISMAS observations’** – Flagey N., Goldsmith P.F., Lis D.C., et al., *accepted for publication ApJ*
 - **‘Spitzer/IRS Investigation of MIPSGAL 24 microns Compact Bubbles’** – Flagey N., Noriega-Crespo A., Billot N., Carey S. 2011, *ApJ*, 741, 4
 - **‘Tracing the energetics & evolution of dust with Spitzer: a chapter in the history of the Eagle nebula’** – Flagey N., Boulanger F., Noriega-Crespo, A., et al. 2011, *A&A*, 531, 51
 - **‘Evidence for dust evolution within the Taurus Complex from Spitzer images’** – Flagey, N., Noriega-Crespo, A., Boulanger, F., et al. 2009, *ApJ*, 701, 1450
 - **‘Spitzer/IRAC & ISOCAM/CVF insights on the origin of the near to mid-IR Galactic diffuse emission’** – Flagey N., Boulanger F., Verstraete L., et al. 2006, *A&A*, 453, 969
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SELECTED OTHER REFEREED PUBLICATIONS

- **‘A multi-wavelength investigation of RCW175: an HII region harboring spinning dust emission’** – Tibbs, C. T.; Paladini, R.; Compiegne, M.; Dickinson, C.; Alves, M. I. R.; Flagey, N. et al. 2012, *ApJ*, 754, 94
 - **‘Spitzer characterization of dust in an anomalous emission region: the Perseus cloud’** – Tibbs, C. T.; Flagey, N.; Paladini, R. et al., 2011, *MNRAS*, 1575
 - **‘The global dust SED: Tracing the nature and evolution of dust with DustEM’** – Compiegne, M.; Verstraete, L.; Jones, A.; Bernard, J. -P.; Boulanger, F.; Flagey, N. et al. 2011, *A&A*, 525, 103
 - **‘Dust in the Diffuse Emission of the Galactic Plane: The Herschel/Spitzer Spectral Energy Distribution Fitting’** – Compiegne, M., Flagey, N., et al. 2010, *ApJ Letters*, 724, 44
 - **‘A Catalog of MIPSGAL Disk and Ring Sources’** – Mizuno, D. R., Kraemer, K. E., Flagey, N., et al. 2010, *AJ*, 139, 1542
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IN PREPARATION

- **‘The near to far-infrared view of the Eagle Nebula: a template for star forming region’** – Flagey N., Compiegne M., Boulanger F., Noriega-Crespo A., et al., *in preparation*
 - **‘Measuring the mass loss of evolved stars in the Galactic plane: a Herschel investigation of MIPSGAL 24 microns compact bubbles’** – Flagey N., Noriega-Crespo A., et al., *in preparation*
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SELECTION OF
RECENT ORAL
PRESENTATIONS

Institute for Astronomy, Honolulu, Hawai'i, June 12th, 2012
Gemini Observatory, Hilo, Hawai'i, June 8th, 2012
Instituto de Astronomia, UNAM, Ensenada, Mexico, April 19th, 2012
WFIRST meeting, Pasadena, Feb 13-15, 2012
Space Sciences Laboratory, UC Berkeley, December 9th, 2011
SOFIA Science Center, NASA Ames, September 21st, 2011
AAS Meetings (#219, #215, #214, #213, #209)

SELECTION OF
ACCEPTED
PROPOSALS

P.I. of a Herschel OT-2 Proposal
'Capturing missing evolved stars in the Galactic plane, 9.8 hours of SPIRE full spectral range

P.I. of a Palomar 2012B Proposal
'Characterization of Luminous Blue Variables Nebulae', 3 nights with WIRC and LFC (optical and near-IR wide-field camera)

P.I. of a Herschel OT-1 Proposal
'Hunting for missing evolved stars in the Galactic plane', 39.6 hours of PACS full spectral range

P.I. of a Palomar 2010B Proposal
'Hunting for missing massive evolved stars in the Galactic plane', 2 nights with TripleSpec (near-IR spectrograph)

P.I. of a Spitzer GO-5 Science Programs Proposal
'The Eagle Nebula: a spectral template for star forming regions', 56 hours of spectral mapping

P.I. of a Spitzer Director's Discretionary Time Proposal
'Spectroscopic survey of 24 microns selected dust-free SNR candidates', 1 hour of spectral starrng

P.I. of a CFHT 2008A proposal
'An Explosive Discovery within the Eagle Nebula', 10 hours with WIRCam

OTHER AWARDS

Chambliss Astronomy Achievement Student Award, Honorable Mention, 209th meeting of the AAS, 5-10 January 2007, Seattle, WA

Press conference at the 209th meeting of the AAS, 2007, Seattle, WA

Visiting graduate student program at the Spitzer Science Center, August 2006-February 2007

OBSERVATIONAL
EXPERIENCE

Spitzer (IRS, IRAC, MIPS): preparation, reduction, analysis

Herschel (PACS, SPIRE, HIFI) : preparation, reduction, analysis

Palomar (TripleSpec, WIRC, LFC) : preparation, observation, reduction, analysis

Keck (NIRSPEC): observation

IRAM (EMIR): preparation, observation

CARMA: observation

EDUCATION

PhD Thesis, Astrophysics **September, 2004 - October, 2007**

Institut d'Astrophysique Spatiale, University Paris XI, Orsay, FRANCE

'Properties and evolution of the dust in the galactic interstellar medium' Advisor: François Boulanger
Committee for defense (on October 10, 2007): Eli Dwek, Thierry Montmerle, Jean-Philippe Bernard,
Alberto Noriega-Crespo, Guillaume Pineau des Forets

College, Physics & Astrophysics

Ecole Normale Supérieure, Department of Physics, Cachan, FRANCE

2000 - 2004

& University Paris XI, Orsay, FRANCE & Observatory of Paris-Meudon

- Postgraduate degree with a specialization in astrophysics
(french D.E.A 'Astrophysics and associated methods')
- Preparing for "Agrégation" of Physics
(nationwide competitive examination for recruitment of lycée and university teachers)
Passed (rank : 41 over ~150 admitted and ~1000 candidates)
- Bachelor of Science degree and Master's degree in Physics

Lycée Kléber, Strasbourg, FRANCE

September, 1997 - July, 2000

- "Classes Préparatoires"
(two-year class preparing for highly competitive, national entrance examinations to 'Grandes Ecoles', prestigious university-level institutions)

TRAINING PERIODS
& TEACHING
EXPERIENCE

Visiting graduate student

August, 2006 - February, 2007

Spitzer Science Center, IPAC, Caltech, Pasadena, California, USA

'Analysis of the dust emission in the Eagle Nebula M16'

Advisors: Alberto Noriega-Crespo & Sean Carey

Teacher

September, 2004 - August, 2007

University Paris XI, Orsay, FRANCE

Physics (Bachelor of Science and Master's degrees, courses and experimentations)

Postgraduated degree internship

April, 2004 - June, 2004

Institut d'Astrophysique Spatiale, University Paris XI, Orsay, FRANCE

'Dust in the Spitzer Galactic First Look Survey'

Advisor: François Boulanger

Master's degree internship

May, 2002 - July, 2002

Institut d'Astrophysique Spatiale, University Paris XI, Orsay, FRANCE

& University of Chile, Department of Astronomy, Santiago, CHILE

'Study of the molecular hydrogen in a region of the Large Magellanic Cloud'

Advisors: Monica Rubio & Laurent Verstraete

Bachelor of Science degree internship

June, 2001 - July, 2001

University Paris XI, Orsay, FRANCE & Observatory of Strasbourg, Strasbourg, FRANCE

'Calculation of hyperfine structure of Technetium and its use as a diagnostic of AGB stars evolution'

Advisor: Richard Monier

MISCELLANEOUS

Languages: French (native), English (fluent)

Driver license (since 1998, clean record)

Computing: expert in IDL, average in Fortran, basic in IRAF, C/C++, HTML, PHP ... overall fast learner of computing languages