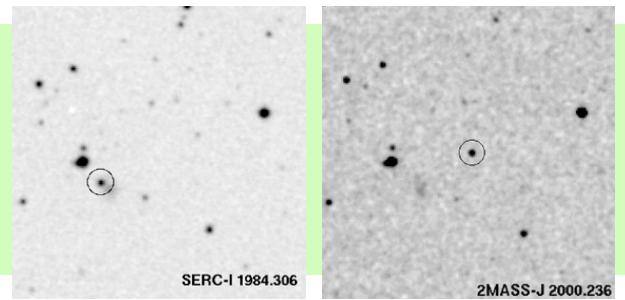


# Sébastien Lépine

Ph.D. Physicist, Astronomy & Astrophysics Research Scientist



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## Scientist and observational astronomer with expertise/interests in:

**Low-mass stars and brown dwarfs**

**Search for extra-solar planets**

**Science Education**

**Galactic structure and evolution**

**All-sky surveys (astrometric, photometric)**

**Double/multiple stars**

**Data Mining**

**Stellar spectroscopy**

## Career Experience

### Senior Research Scientist, American Museum of Natural History — 2000-current :

New York, NY. - Externally funded research programs in stellar and Galactic astronomy. Supervision of undergraduate interns. Mentoring activities with high school students. Consultant on the Hayden Planetarium space shows.

### On-line Professor, National Center for Science Literacy — 2008-current :

New York, NY. - Online professor for a course on the Solar System. Course specifically addressed to science educators (elementary / middle-school / high-school teachers). Emphasis on understanding basic concepts in physics and astronomy, guidance in developing K-12 science curriculum, familiarization with on-line resources.

### Postdoctoral research fellow, Space Telescope Science Institute — 1998-2000

Baltimore, MD. - Development of a code to identify variable and moving objects in multiple epoch scans from the STScI Digitized Sky Surveys. Design and initial work on an all-sky proper motion survey (the SUPERBLINK survey).

### Assistant professor, Saint-Laurent College — 1998

Montreal, QC. - Development and teaching of a second year Physics college course on electrostatics and electromagnetism. Lectures and labs. (Saint-Laurent College is in the Quebec CEGEP network, equivalent to a U.S. community college).

### Teaching assistant, University of Montreal — 1994-1997

Montreal, QC. - Responsible for 2-hour/week lectures and blackboard problem solving, plus correction of weekly homeworks. Classes taught: quantum mechanics, special relativity, classical mechanics, general astronomy for science majors.

**Education :**

**1998: Ph.D. in Physics, University of Montreal, Montreal, Qc, Canada**

**1993: B.Sc. in Physics, University of Montreal, Montreal, Qc, Canada**

**Research Grants Awarded:**

**\$160,000 - National Aeronautics and Space Administration (NASA), Hubble Space Telescope Grant (2010-2011)**

(P.-I.) - *Hubble Space Telescope cycle 18 AR program. "The Metallicity Fraction and Period Distribution of Nearby Disk and Halo Stars"* (Archival Research program).

**\$905,328 - National Aeronautics and Space Administration, Education Grant (2009-2012)**

(Co-I.) - *Science Research Mentoring Program (SRMP), development of an after-school program in astrophysics and space sciences, combined with research internships. For children from under-represented minorities / low-income families, grades 9-12.*

**\$564,000 - National Science Foundation (NSF), Astrophysics Grant (2009-2013)**

(P.I.) - *Astrophysics grant AST-0908406 : "Collaborative Research: Nearby M Stars as High-Priority Targets for Exoplanet Searches."*

**\$16,000 - National Aeronautics and Space Administration (NASA), JPL grant (2009)**

(P.I.) - *NASA-Keck program: "A search for stellar/substellar companions to low-mass, halo stars."*

**\$45,000- National Aeronautics and Space Administration (NASA), GALEX grant (2009-2010)**

(P.I.) - *GALEX cycle 5 GI project. "A systematic search for nearby white dwarfs in the GALEX archive: positions and motions of 100,000 disk and halo white dwarfs".*

**\$90,000- National Aeronautics and Space Administration (NASA), Hubble Space Telescope grant (2009-2010 / Cycle 17)**

(P.I.) - *Hubble Space Telescope cycle 17 GO program. "A search for astrometric companions to very low-mass, Population II stars" (70 HST orbits).*

**\$325,000 - National Science Foundation (NSF), Astrophysics grant (2007-2009)**

(P.I.) - *Astrophysics grant AST-0607757 : "Positions and motions of 250,000 stars in the Solar Vicinity: stellar contents and dynamical structure of the Galaxy"*

**\$100,000 - Kalbfleish Research Fellowship (2002-2004)**

(P.I.) - *For carrying out a research program in the natural sciences at the American American Museum of Natural History: "An all-sky survey of stars within 30 parsecs of the Sun"*

## Research Grants Awarded (*continued*):

**\$188,000 - National Science Foundation (NSF), Astrophysics grant (2000-2002)**

(*Co-P.I.*) - *Astrophysics grant AST-0087313 : "NSTARS: Completing the Inventory of Nearby Stars: An automated all-sky search for high proper-motion stars using the Digitized Sky Survey."*

**\$70,000 - Canada-NSERC post-doctoral fellowship**

(*P.I.*) - *Science research fellowship from the Government of Canada (highly competitive, equivalent to a U.S. National Science Foundation postdoctoral fellowship.)*

## Scholarships and awards

### **1999: Academic Gold Medal of the Governor General of Canada**

*Annually awarded to the one student with the most distinguished record in every major Canadian University. Awarded for most outstanding student at University of Montreal (26,000 full-time students).*

### **1998: First prize for best student presentation, CASCA general meeting**

*Awarded at the annual general meeting of the Canadian Astronomical Society.*

### **1997-1998: Quebec-FCAR graduate student scholarship**

*Elite scholarship awarded by the government of Quebec for pursuing and completing doctoral studies in the natural or applied sciences.*

### **1994-1997: Canada-NSERC graduate student scholarship**

*Elite scholarship awarded by the government of Canada for pursuing graduate studies in the natural sciences (equivalent to an NSF graduate scholarship in the US).*

## Astronomical Observation expertise:

### **Over 350 nights of observations on a wide variety of telescopes, including:**

- *William M. Keck 10.0-meter Telescope*
- *Cerro-Tololo Interamerican Observatory (CTIO) 4.0-meter Blanco*
- *Kitt Peak National Observatory (KPNO) 3.8-meter Mayall Telescope*
- *Canada-France-Hawaii 3.6-meter Telescope (CFHT)*
- *Lick Observatory 3.0-meter Shane Telescope*
- *MDM Observatory 2.4-meter Hiltner Telescope*
- *Steward Observatory 2.3-meter Bok Telescope*
- *Mont Megantic Observatory 1.6-meter Telescope*
- *MDM Observatory 1.3-meter McGraw-Hill*
- *Kitt Peak National Observatory (KPNO) 0.9-meter Telescope*

**Expertise in large-scale astronomical survey programs, including:**

- *Low- and medium-resolution spectroscopy in the optical.*
- *High-resolution spectroscopy, including “echelle” spectroscopy.*
- *Astrometric measurements, including proper motions and parallax.*
- *Optical and infrared imaging.*
- *Adaptive optics imaging, including with laser guide star systems.*

**Expertise in data-mining / analysis / science programming:**

- **Data-mining of large astronomical database,** *including the Digitized Sky Surveys (DSS), two-micron all sky survey (2MASS), Sloan Digital Sky Survey (SDSS), Hubble Space Telescope archive, GALEX archive, etc...*
- **Extensive knowledge and experience with large astronomical catalogs** (*Hipparcos, Tycho-2, USNO-B1.0, UCAC-2.0, GSC-2.2, ROSAT, Yale Parallax Catalog, etc...*)
- **Extensive experience with various programming languages,** *including FORTRAN, C++, IDL, SUPERMONGO.*

**Synergistic activities in astronomy:**

- **Panelist in the Telescope Allocation Committee (TAC) for the National Optical Astronomical Observatories (NOAO):** member of the Galactic TAC panel. (2008-2010)
- **Member of the working group on stellar populations** for the planned Large Synoptic Survey Telescope (LSST).
- **Member of LAMOST-PLUS,** a U.S.-China collaboration on the Large Aperture Multi-Object Spectrograph Telescope (funded by NSF).

**Teaching / supervision experience:****Internet science teacher:**

*Internet class on “The Solar System” from the National Center for Science Literacy, guidance of 12-15 on-line students per semester. Part of the “Seminars on Science” series, most students are science educators at the high-school level. Update on current discoveries in astronomy, tips on science education methods, use of internet tools, etc...*

**Supervision of graduate students :**

- **Josh Schlieder (State University of New York, Stonybrook):** Ph.D. candidate, Thesis title: “A Search for Young Low-Mass Stars as Members of Nearby Moving Groups”, (Co-supervision with Prof. Michal Simon).
- **Marie-Michele Limoges (Universite de Montreal):** Ph.D. candidate, Thesis title: “Physical Parameters of White Dwarfs in the Solar Neighborhood”, (Co-supervision with Prof. Pierre Bergeron).

**Supervision of college undergraduates :**

*Supervision of college undergraduates in semester-long research programs, several as part of the NSF Research Experience for Undergraduates (REU) program:*

- 2003: **Drew McCourt, Maria Halmo.**
- 2004: **Bethany Bongiorno.**
- 2005: **Amanda Moffett.**
- 2007: **Elisa Corin, Marina Zaiats, Kelly Patton.**
- 2008: **Jacob Hummel, Monica Huang.**
- 2009: **Jacqueline Stone, Bryndis Cruz.**
- 2010: **Faith Pilacik, Naomi Alpert, Helga Nellie Wong, Hannah Bish**

**Mentoring of high-school students :**

*Mentoring of high-school juniors and seniors in small, focused research programs, for participation in local/national science fairs and the “Intel Talent Search” competition:*

- 2007: **Christopher Jordan, Katherine Bedkowski** (Intel national semi-finalist)
- 2008: **Amy Secundi**
- 2009: **Grace Guo, Philip Schmiege, Michal Yardeni**
- 2010: **Kevin Chon**

**Education / public outreach :**

- **Credits:** “*Journey to the Stars*” - A planetarium space show produced by the American Museum of Natural History (2009), simulations and 3-D representation of stars in the Galaxy (positions and motions), realistic rendition of the Solar neighborhood.
- **Science presentations to local elementary school and high school students,** various groups, through the AMNH summer school program.
- **Presentations and hands-on activities to local 3rd, and 4th grade classes in local schools with under-represented minorities.** Hands-on activities to stimulate interest in the space sciences, and teach about Earth, the Sun, and the Solar System. Over 400 children reached so far. Volunteer work. (Schools with 60% latino, 30% black population - Hackensack N.J. School district).

# List of Scientific Publications:

## A) Publications in refereed journals:

45. Schlieder, J. E., **Lépine, S.**, and Simon, M. 2010, “ $\beta$  Pictoris and AB Doradus Moving Groups: Likely New Low-mass Members,” *The Astronomical Journal*, 140, 119
44. Apps, K., Clubb, K. I., Fischer, D. A.; Gaidos, E., Howard, A., Johnson, J. A., Marcy, G. W., Isaacson, H., Giguere, M. J., Valenti, J. A., Rodriguez, V., Chubak, C., and **Lépine, S.** 2010, “M2K: I. A Jupiter-Mass Planet Orbiting the M3V Star HIP 79431,” *Publications of the Astronomical Society of the Pacific*, 122, 156
43. **Lépine, S.**, Thorstensen, J. R., Shara, M. M., & Rich, R. M. 2009, “New Neighbors: Parallaxes of 18 nearby stars selected from the LSPM-north catalog,” *The Astronomical Journal*, 137, 4109
42. Dong, S., Gould, A., Udalski, A., Anderson, J., Christie, G. W.; Gaudi, B. S., The OGLE Collaboration, Jaroszyński, M. , Kubiak, M. , Szymański, M. K. , Pietrzyński, G. , Soszyński, I. , Szewczyk, O. , Ulaczyk, K. , Wyrzykowski, Ł., The µFUN Collaboration, DePoy, D. L., Fox, D. B., Gal-Yam, A., Han, C., **Lépine, S.**, McCormick, J. , Ofek, E. , Park, B.-G. , Pogge, R. W., The MOA Collaboration , Abe, F., Bennett, D. P., Bond, I. A. , Britton, T. R., Gilmore, A. C., Hearnshaw, J. B., Itow, Y., Kamiya, K., Kilmartin, P. M., Korpela, A., Masuda, K., Matsubara, Y., Motomura, M. , Muraki, Y., Nakamura, S. , Ohnishi, K. , Okada, C. , Rattenbury, N. , Saito, To., Sako, T.; Sasaki, M. ; Sullivan, D. , Sumi, T., Tristram, P. J. , Yanagisawa, T., Yock, P. C. M. , Yoshoika, T., The PLANET/Robo Net Collaborations , Albrow, M. D. , Beaulieu, J. P., Brillant, S. , Calitz, H. , Cassan, A. , Cook, K. H. , Coutures, Ch. , Dieters, S. , Prester, D. Dominis, Donatowicz, J., Fouqué, P., Greenhill, J., Hill, K., Hoffman, M., Horne, K., Jørgensen, U. G., Kane, S., Kubas, D., Marquette, J. B., Martin, R., Meintjes, P., Menzies, J., Pollard, K. R. , Sahu, K. C. , Vinter, C. , Wambsganss, J. , Williams, A. , Bode, M. , Bramich, D. M. , Burgdorf, M., Snodgrass, C., Steele, I., Doublier, V., Foellmi, C., 2009, “OGLE-2005-BLG-071Lb, the Most Massive M Dwarf Planetary Companion?”, *The Astrophysical Journal*, 695, 970
41. Sivarani, T. , **Lépine, S.**, Kembhavi, A. K., & Gupchup, J. 2009, “SDSS J125637-022452: a high proper motion L subdwarf,” *The Astrophysical Journal Letters*, 694, L140
40. **Lépine, S.**, & Simon, M. 2009, “Nearby young stars selected by proper motion. I. Four new members of the Beta Pictoris moving group from the TYCHO-2 catalog,” *The Astronomical Journal*, 137, 3632
39. Woolf, V. M., **Lépine, S.**, & Wallerstein, G. 2009, “Calibrating M Dwarf Metallicities Using Molecular Indices: Extension to Low Metallicity Stars”, *Publications of the Astronomical Society of the Pacific*, 121, 117
38. Thorstensen, J. R.; **Lépine, S.**, & Shara, M. 2008, “Parallax and Distance Estimates for Twelve Cataclysmic Variable Stars,” *The Astronomical Journal*, 136, 2107
37. **Lépine, S.**, & Moffat, Anthony F. J. 2008, “Direct Spectroscopic Observations of Clumping in O-Star Winds,” *The Astronomical Journal*, 136, 548
36. **Lépine, S.**, & Scholz, R.-D. 2008, “Twenty-Three New Ultracool Subdwarfs from the Sloan Digital Sky Survey,” *The Astrophysical Journal Letters*, 681, L33
35. **Lépine, S.** 2008, “New High Proper Motion Stars from the Digitized Sky Survey. Iv. Completion of the Southern Survey and 170 Additional Stars with  $\mu > 0.45'' \text{ yr}^{-1}$ ,” *The Astronomical Journal*, 135, 2177
34. Adelman-McCarthy, J. K., and 153 coauthors including **Lépine, S.** 2008, “The Sixth Data Release of the Sloan Digital Sky Survey,” *The Astrophysical Journal Supplement*, 175, 297

- 33.** Burgasser, A. J., Vrba, F. J.; **Lépine, S.**, Munn, J. A., Luginbuhl, C. B.; Henden, A. A., Guetter, H. H., & Canzian, B. C. 2008, "Parallax and Luminosity Measurements of an L Subdwarf, The Astrophysical Journal," 672, 1159
- 32.** **Lépine, S.**, Rich, R. M.; Shara, M. M., Cruz, K. L., Skemer, A. 2007, " An astrometric companion to the nearby metal-poor, low-mass star LHS 1589," The Astrophysical Journal, 668, 507
- 31.** Shara, M. M., Martin, C. D., Seibert, M., Rich, R. M., Salim, S., Reitzel, D., Schiminovich, D., Deliyannis, C. P., Sarrazine, A. R., Kulkarni, S. R., Ofek, E. O., Brosch, N., **Lépine, S.**, Zurek, D., de Marco, O., Jacoby, G. 2007, "An ancient nova shell around the dwarf nova Z Camelopardalis," Nature 466, #7132, pp.159-162
- 30.** Kalirai, J. S., Anderson, J., Richer, H. B., King, I. R., Brewer, J. P., Carraro, G., Davis, S. D., Fahlman, G. G., Hansen, B. M. S., Hurley, J. R., **Lépine, S.**, Reitzel, D. B., Rich, R. M., Shara, M. M., & Stetson, P. B. 2007, "The Space Motion of the Globular Cluster NGC 6397," The Astrophysical Journal Letters, 657, L93.
- 29.** Yost, S. A., Swan, H. F., Rykoff, E. S., Aharonian, F., Akerlof, C. W., Alday, A., Ashley, M. C. B., Barthelmy, S., Burrows, D., Depoy, D. L., Dufour, R. J., Eastman, J. D., Forgey, R. D., Gehrels, N., Gogus, E., Guver, T., Halpern, J. P., Hardin, L. C., Horns, D., Kizilovglu, U., Krimm, H. A., **Lépine, S.**, Liang, E. P., Marshall, J. L., McKay, T. A., Mineo, T., Mirabal, N., "Ozel, M., Phillips, A., Prieto, J. L., Quimby, R. M., Romano, P., Rowell, G., Rujopakarn, W., Schaefer, B. E., Silverman, J. M., Siverd, R., Skinner, M., Smith, D. A., Smith, I. A., Tonnesen, S., Troja, E., Vestrand, W. T., Wheeler, J. C., Wren, J., Yuan, & F., Zhang, B. 2007, "Exploring Broadband GRB Behavior During gamma-ray Emission," The Astrophysical Journal, 657, 925.
- 28.** **Lépine, S.**, & Bongiorno, B. 2007, "New Distant Companions to Known Nearby Stars. II. Faint Companions of HIPPARCOS Stars and the Frequency of Wide Binary Systems," The Astronomical Journal, 133, 889
- 27.** Lanning, H. H., & **Lépine, S.** 2006, "Proper Motions of Faint UV-Bright Sources in the Sandage Two-color Survey of the Galactic Plane," PASP, 118, 1639
- 26.** Thorstensen, J. R., **Lépine, S.**, & Shara, M. 2006, "The Unusual Cataclysmic Binary Star RBS 0490 and the Space Density of Cataclysmic Variables," PASP, 118, 1238
- 25.** **Lépine, S.**, Rich, R. M., & Shara, M. M. 2005, "Discovery of a nearby halo white dwarf with proper motion  $\mu = 2.55 \text{ arcsec/yr}$ ," The Astrophysical Journal Letters, 633, L121
- 24.** **Lépine, S.** 2005, "Nearby Stars from the LSPM-North Proper-Motion Catalog. I. Main-Sequence Dwarfs and Giants within 33 Parsecs of the Sun," The Astronomical Journal, 130, 1680
- 23.** **Lépine, S.** 2005, "New High Proper Motion Stars from the Digitized Sky Survey. III. Stars with proper motions  $0.45 < \mu < 2.0'' \text{ yr}^{-1}$  south of Decl.=-30," The Astronomical Journal, 130, 1247
- 22.** Udalski, A., Jaroszynski, M., Paczynski, B., Kubiak, M., Szymanski, M. K., Soszynski, I., Pietrzynski, G., Ulaczyk, K., Szewczyk, O., Wyrzykowski, L., Christie, G. W., DePoy, D. L., Dong, S., Gal-Yam, A., Gaudi, B. S., Gould, A., Han, C., **Lépine, S.**, McCormick, J., Park, B.-G., Pogge, R. W., Bennett, D. P., Bond, I. A., Muraki, Y., Tristram, P. J., Yock, P. C. M., Beaulieu, J.-P., Bramich, D. M., Dieters, S. W., Greenhill, J., Hill, K., Horne, K., & Kubas, D. 2005, "A Jovian-Mass Planet in Microlensing Event OGLE-2005-BLG-071," The Astrophysical Journal, 628, L109
- 21.** Lefèvre, L., Marchenko, S. V., **Lépine, S.**, Moffat, A. F. J., Acker, A., Harries, T. J., Annuk, K., Bohlender, D. A., Demers, H., Grosdidier, Y., Hill, G. M., Morrison, N. D., Knauth, D. C., Skalkowski, G., & Viti, S. 2005, "Spectroscopic study of the long-period dust-producing WC7pd+O9 binary HD192641," Monthly Notices of the Royal Astronomical Society, 360, 141

20. **Lépine, S.**, Shara, M. M., & Rich, R. M. 2005, "A Catalog of Northern Stars With Annual Proper Motions Larger Than 0.15 Seconds of Arc (LSPM-north Catalog)," *The Astronomical Journal*, 129, 1483
19. **Lépine, S.**, Rich, R. M., & Shara, M. M. 2004, "The esdM6.5 star LSRJ0822+1700: a new ultracool extreme subdwarf," *The Astrophysical Journal Letters*, 602, L125
18. **Lépine, S.**, Shara, M. M., & Rich, R. M. 2003, "New High Proper Motion Stars from the Digitized Sky Survey. II. Northern Stars with  $0.5 < \mu < 2.0'' \text{ yr}^{-1}$  at High Galactic Latitudes," *The Astronomical Journal*, 126, 921.
17. **Lépine, S.**, Rich, R. M., & Shara, M. M. 2003, "LSR1610-0040: the first early-type L subdwarf," *The Astrophysical Journal Letters*, 591, L49.
16. Salim, S., **Lépine, S.**, Rich, R. M., & Shara, M. M. 2003, "LSR 0602+3910: Discovery of a Bright Nearby L-Type Brown Dwarf," *The Astrophysical Journal Letters*, 586, L149.
15. **Lépine, S.**, Rich, R. M., & Shara, M. M. 2003, "Spectroscopy of New High Proper Motion Stars in the Northern Sky. I. New Nearby Stars, New High Velocity Stars, and an Enhanced Classification Scheme for M Dwarfs," *The Astronomical Journal*, 125, 1598.
14. **Lépine, S.**, Shara, M. M., & Rich, R. M. 2003, "Discovery of an Ultracool Subdwarf: LSR 1425+7102, the First Star with Spectral Type sdM8.0," *The Astrophysical Journal Letters*, 585, L69.
13. **Lépine, S.**, Rich, R. M., Neill, J. D., Caulet, A., & Shara, M. M. 2002, "Discovery of an M8.5 Dwarf With Proper Motion  $\mu = 2.38'' \text{ yr}^{-1}$ ," *The Astrophysical Journal Letters*, 581, L47.
12. **Lépine, S.**, Shara, M. M., Rich, R. M. 2002, "New High Proper Motion Stars from the Digitized Sky Survey. I. Northern Stars with  $0.5'' \text{ yr}^{-1} < \mu < 2.0'' \text{ yr}^{-1}$  at Low Galactic Latitudes," *The Astronomical Journal*, 124, 1190.
11. **Lépine, S.**, Shara, M. M., & Rich, R. M. 2002, "New Distant Companions to Known Nearby Stars. I. GJ 4047B, GJ 718B, GJ 747.2C, GJ 4100B and GJ 4153B," *The Astronomical Journal*, 123, 3434.
10. **Lépine, S.**, Wallace, D., Shara, M. M., Moffat, A. F. J., & Niemela, V. S. 2001, "Spatially Resolved STIS Spectra of WR+OB Binaries with Colliding Winds," *The Astronomical Journal*, 122, 3407.
9. **Lépine, S.**, Moffat, A. F. J., St-Louis, N., Marchenko, S. V., Dalton, M. J., Crowther, P. A., Smith, L. J., Willis, A. J., Antokhin, I. I., & Tovmassian, G. H. 2000, "Wind Inhomogeneities in Wolf-Rayet Stars. IV. Using Clumps to Probe the Wind Structure in the WC8 Star HD 192103," *The Astronomical Journal*, 120, 3201.
8. **Lépine, S.**, Shara, M.M., Livio, M., & Zurek, D. 1999, "First Direct Measurement of Acceleration in the Outflow of a Nova: U Scorpii (1999)," *The Astrophysical Journal Letters*, 522, L121.
7. **Lépine, S.**, Eversberg, T., & Moffat, A.F.J. 1999, "Wind Inhomogeneities in Wolf-Rayet Stars. III. Unusual Emission-Line Profile Variations in γ2 Velorum," *The Astronomical Journal*, 117, 1441.
6. **Lépine, S.**, & Moffat, A.F.J. 1999, "Wind Inhomogeneities in Wolf-Rayet Stars. II. Investigation of Emission-Line Profile Variations," *The Astrophysical Journal*, 514, 909.
5. **Lépine, S.** 1998, "Observations of Stellar Wind Instabilities and Variability on Small and Large Scales," *Astrophysics and Space Sciences*, 260, 101-112.
4. Eversberg, T.E., **Lépine, S.** & Moffat, A.F.J. 1998, "Outmoving Micro-Structures in the Wind of ζ Puppis," *The Astrophysical Journal*, 494, 799-805.

3. **Lépine, S.**, Moffat, A.F.J. & Henriksen, R.N. 1996, "Wind Inhomogeneities in Wolf-Rayet Stars. I. Search for Scaling Laws Using Wavelet Transforms," *The Astrophysical Journal*, 466, 392-403.
2. **Lépine, S.** 1994, "Wavelet Analysis of Wolf-Rayet Emission Lines: Evidence for Clumping," *Astrophysics and Space Sciences*, 221, 371-382.
1. Moffat, A.F.J., **Lépine, S.**, Henriksen, R.N. & Robert, C. 1994, "First Wavelet Analysis of Emission Line Variations in Wolf-Rayet Stars: Turbulence in Hot Star Outflows," *Astrophysics and Space Sciences*, 216, 55-60.

## B) Publications in conference proceedings, and other publications:

32. Schlieder, J., Simon, M., and **Lépine, S.** 2009, "New Low-Mass Members of the AB Doradus Nearby Young Moving Group", American Astronomical Society Meeting #215, #455.09, Bulletin of the American Astronomical Society, Vol. 42, p.474
31. Stone, J., **Lépine, S.** , Cruz, B., and Jordan, C. 2009, "New Stars Within 33 parsecs of the Sun from the SUPERBLINK Survey", American Astronomical Society Meeting #215, #424.09, Bulletin of the American Astronomical Society, Vol. 42, p.332
30. Cruz, B., **Lépine, S.** , Stone, J., and Jordan, C. 2009, "New Binary Systems in the Northern Sky from the SUPERBLINK Survey", American Astronomical Society Meeting #215, #419.25, Bulletin of the American Astronomical Society, Vol. 42, p.280
29. **Lépine, S.** 2009, "Proper Motions Of Ultra-violet Sources In The GALEX Database: White Dwarfs, Sub-dwarfs, And Other Nearby Hot Stars", American Astronomical Society Meeting #215, #300.09, Bulletin of the American Astronomical Society, Vol. 42, p.296
28. Malz, A., Rich, R., and **Lépine, S.** 2009, "Low-mass Binaries in the Galactic Halo Resolved by Adaptive Optics", American Astronomical Society Meeting #213, #602.04
27. Mille, F. Di, Ciroi, S., Navasardyan, H., **Lépine, S.**, Zee, L. V., Barnes, K. L., Hartmann, D. H., Brittain, S. D., Updike, A. C., Kaur, A., Williams, G. G., Pietsch, W., Siviero, A., Saguner, T., Orio, M., Rafanelli, P., Bianchini, A. 2009, "Optical Spectroscopy of the M31 nova M31N-2009-10b", *The Astronomer's Telegram*, #2248
26. Schlieder, Joshua E., Simon, M., and **Lépine, S.** 2009, "New Low-Mass Members of Nearby Young Moving Groups", American Astronomical Society Meeting #214, #421.02
25. Hummel, J., **Lépine, S.**, and Huang, M. 2009, "Local Stellar Kinematics from the SUPERBLINK Database", American Astronomical Society, American Astronomical Society Meeting #213, #407.11
24. **Lépine, S.**, Lee, Y. S., Yanni, B. and the SEGUE collaboration 2009, "Cool Subdwarfs As Tracers Of The Galactic Halo: A Massive Spectroscopic Survey Of Low-mass, Metal-poor Stars In SDSS", American Astronomical Society, American Astronomical Society Meeting #213, #303.04
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