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**Protoplanetary disks and exoplanets in scattered light**

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# Publications

## **Chapter 2: Polarized scattered light from self-luminous exoplanets**

*Accepted for publication in Astronomy & Astrophysics*

**T. Stolker**, M. Min, D. M. Stam, P. Mollière, C. Dominik, and L. B. F. M. Waters

## **Chapter 3: Scattered light mapping of protoplanetary disks**

*Astronomy & Astrophysics, 2016, Volume 596, A70*

**T. Stolker**, C. Dominik, M. Min, A. Garufi, G. D. Mulders, and H. Avenhaus

## **Chapter 4: Shadows cast on the transition disk of HD 135344B**

*Astronomy & Astrophysics, 2016, Volume 595, A113*

**T. Stolker**, C. Dominik, H. Avenhaus, M. Min, J. de Boer, C. Ginski, H. M. Schmid, A. Juhasz, A. Bazzon, L. B. F. M. Waters, A. Garufi, J.-C. Augereau, M. Benisty, A. Boccaletti, Th. Henning, M. Langlois, A.-L. Maire, F. Ménard, M. R. Meyer, C. Pinte, S. P. Quanz, C. Thalmann, J.-L. Beuzit, M. Carillet, A. Costille, K. Dohlen, M. Feldt, D. Gisler, D. Mouillet, A. Pavlov, D. Perret, C. Petit, J. Pragt, S. Rochat, R. Roelfsema, B. Salasnich, C. Soenke, and F. Wildi

— H.A. and J.d.B. produced the final reduction products.

## **Chapter 5: Variable dynamics in the inner disk of HD 135344B revealed with multi-epoch scattered light imaging**

*Submitted to The Astrophysical Journal*

**T. Stolker**, M. Sitko, B. Lazareff, M. Benisty, C. Dominik, L. B. F. M. Waters, M. Min, S. Perez, J. Milli, A. Garufi, C. Ginski, S. Kraus, J.-P. Berger, H. Avenhaus, and J. de Boer

— M.S. reduced the REM photometry, B.L. was responsible for the model fitting of the PIONIER visibilities.

## **Chapter 6: Direct detection of scattered light gaps in the transitional disk around HD 97048 with VLT/SPHERE**

*Astronomy & Astrophysics, 2016, Volume 595, A112*

C. Ginski, **T. Stolker**, P. Pinilla, C. Dominik, A. Boccaletti, J. de Boer, M. Benisty, B. Biller,

M. Feldt, A. Garufi, C. U. Keller, M. Kenworthy, A.-L. Maire, F. Ménard, D. Mesa, J. Milli, M. Min, C. Pinte, S. P. Quanz, R. van Boekel, M. Bonnefoy, G. Chauvin, S. Desidera, R. Gratton, J. H. V. Girard, M. Keppler, T. Kopytova, A.-M. Lagrange, M. Langlois, D. Rouan, and A. Vigan

— C.G. is the main author and responsible for the data reduction and ellipse fitting, T.S. provided the surface brightness and phase function measurements.

### **Chapter 7: Shadows and spirals in the protoplanetary disk**

*Astronomy & Astrophysics, 2017, Volume 597, A42*

M. Benisty, **T. Stolker**, A. Pohl, J. de Boer, G. Lesur, C. Dominik, C. P. Dullemond, M. Langlois, M. Min, K. Wagner, Th. Henning, A. Juhasz, P. Pinilla, S. Facchini, D. Apai, R. van Boekel, A. Garufi, C. Ginski, F. Ménard, C. Pinte, S. P. Quanz, A. Zurlo, A. Boccaletti, M. Bonnefoy, J. L. Beuzit, G. Chauvin, M. Cudel, S. Desidera, M. Feldt, C. Fontanive, R. Gratton, M. Kasper, A.-M. Lagrange, H. Le Coroller, D. Mouillet, D. Mesa, E. Sissa, A. Vigan, J. Antichi, T. Buey, T. Fusco, D. Gisler, M. Llored, Y. Magnard, O. Moeller-Nilsson, J. Pragt, R. Roelfsema, J.-F. Sauvage, and F. Wildi

— M.B. is the main author, T.S. is responsible for the radiative transfer modeling, J.d.B. produced the final DPI reduction products, C.P.D. and A.P. provided the 1D model.

### **Testing giant planet formation in the transitional disk of SAO 206462 using deep VLT/SPHERE imaging**

*Astronomy & Astrophysics, 2017, Volume 601, A134*

A.-L. Maire, **T. Stolker**, S. Messina, A. Müller, B. A. Biller, T. Currie, C. Dominik, C. A. Grady, A. Boccaletti, M. Bonnefoy, G. Chauvin, R. Galicher, M. Millward, A. Pohl, W. Brandner, Th. Henning, A.-M. Lagrange, M. Langlois, M. R. Meyer, S. P. Quanz, A. Vigan, A. Zurlo, R. van Boekel, E. Buenzli, S. Desidera, M. Feldt, C. Ginski, R. Gratton, J. Lannier, D. Mesa, S. Peretti, C. Perrot, G. Salter, M. Samland, E. Sissa, C. Thalmann, and S. Udry

### **A 'Rosetta Stone' for protoplanetary disks: The synergy of multi-wavelength observations**

*Publications of the Astronomical Society of Australia, 2016, Volume 33, 59*

A. Sicilia-Aguilar, A. Banzatti, A. Carmona, **T. Stolker**, M. Kama, I. Mendigutía, A. Garufi, K. Flaherty, N. van der Marel, and J. Greaves

### **Probing inner and outer disk geometries using shadows in transitional disks**

*Accepted for publication in Astronomy & Astrophysics*

M. Min, **T. Stolker**, C. Dominik, and M. Benisty

### **The SPHERE view of the planet-forming disk around HD 100546**

*Astronomy & Astrophysics, 2016, Volume 588, A8*

A. Garufi, S. P. Quanz, H. M. Schmid, G. D. Mulders, H. Avenhaus, A. Boccaletti, C. Ginski,

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M. Langlois, **T. Stolker**, J.-C. Augereau, M. Benisty, B. Lopez, C. Dominik, R. Gratton, Th. Henning, M. Janson, F. Ménard, M. R. Meyer, C. Pinte, E. Sissa, A. Vigan, A. Zurlo, A. Bazzon, E. Buenzli, M. Bonnefoy, W. Brandner, G. Chauvin, A. Cheetham, M. Cudel, S. Desidera, M. Feldt, R. Galicher, M. Kasper, A.-M. Lagrange, J. Lannier, A. L. Maire, D. Mesa, D. Mouillet, S. Peretti, C. Perrot, G. Salter, and F. Wildi

**Exploring dust around HD 142527 down to  $0''.025/4$  au using SPHERE/ZIMPOL**

*The Astronomical Journal*, 2017, Volume 154, 33

H. Avenhaus, S. P. Quanz, H. M. Schmid, C. Dominik, **T. Stolker**, C. Ginski, J. de Boer, J. Szulágyi, A. Garufi, A. Zurlo, J. Hagelberg, M. Benisty, Th. Henning, F. Ménard, M. R. Meyer, A. Baruffolo, A. Bazzon, J. L. Beuzit, A. Costille, K. Dohlen, J. H. Girard, D. Gisler, M. Kasper, D. Mouillet, J. Pragt, and R. Roelfsema

**The evolution of protoplanetary disks from their taxonomy in scattered light: Group I vs Group II**

*Astronomy & Astrophysics*, 2017, Volume 603, A21

A. Garufi, G. Meeus, M. Benisty, S. P. Quanz, A. Banzatti, M. Kama, H. Canovas, C. Eiroa, H. M. Schmid, **T. Stolker**, A. Pohl, E. Rigliaco, F. Ménard, M. R. Meyer, R. van Boekel, and C. Dominik

**New constraints on the disk characteristics and companion candidates around T Cha with VLT/SPHERE**

*Accepted for publication in Astronomy & Astrophysics*

A. Pohl, E. Sissa, M. Langlois, A. Müller, C. Ginski, R. G. van Holstein, A. Vigan, D. Mesa, A.-L. Maire, Th. Henning, R. Gratton, J. Olofsson, R. van Boekel, M. Benisty, B. Biller, A. Boccaletti, G. Chauvin, S. Daemgen, J. de Boer, S. Desidera, C. Dominik, A. Garufi, M. Janson, Q. Kral, F. Ménard, C. Pinte, **T. Stolker**, J. Szulágyi, A. Zurlo, M. Bonnefoy, A. Cheetham, M. Cudel, M. Feldt, M. Kasper, A.-M. Lagrange, C. Perrot, and F. Wildi